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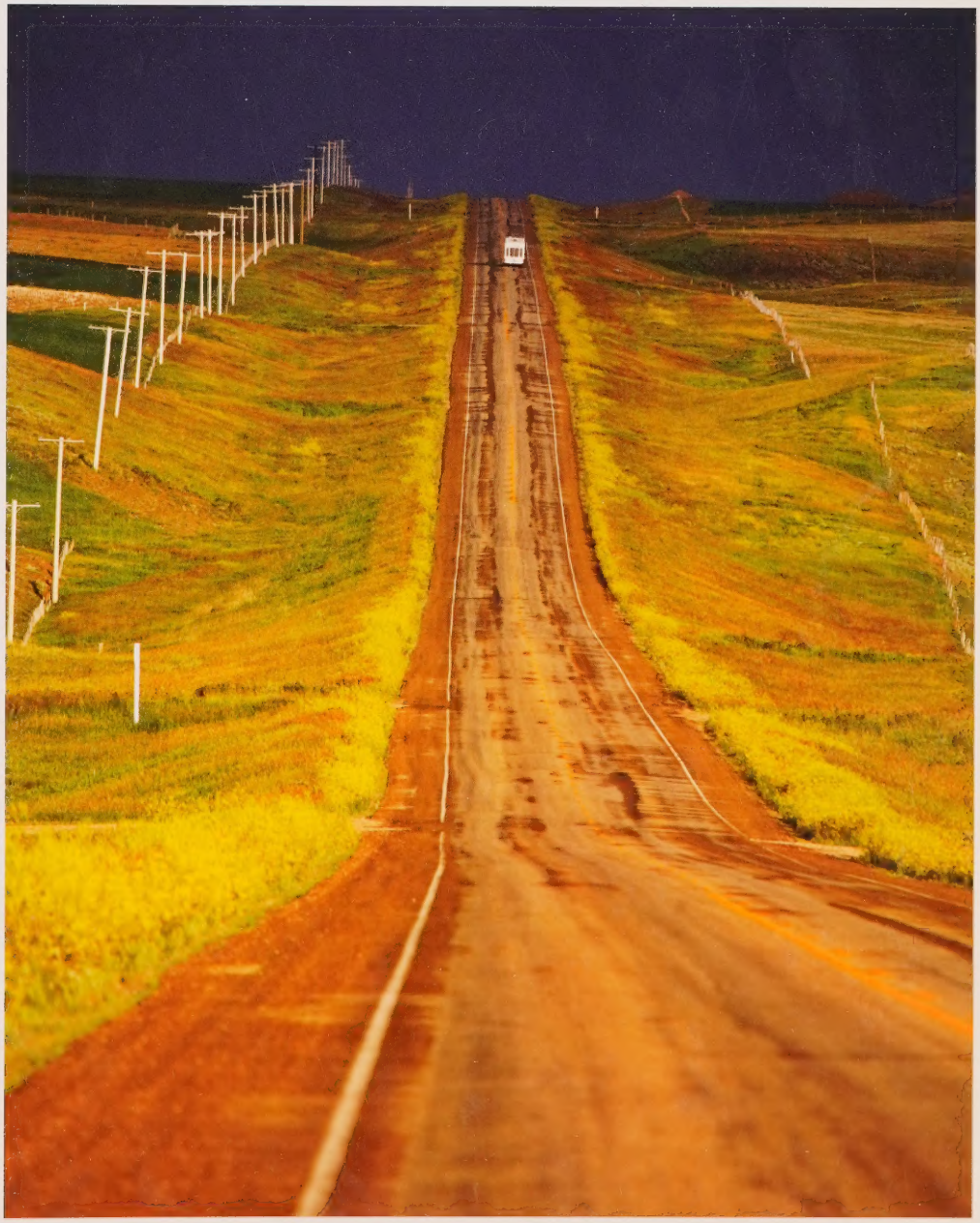

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PERSPECTIVES

ON LABOUR AND INCOME

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PERSPECTIVES
ON LABOUR AND INCOME

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Highlights

In this issue

Household debt in Canada

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- In 2009, two-thirds of households had outstanding debt that averaged $114,400.
- The incidence and amount of debt was higher in certain groups: younger homeowners, young families with children, the better-educated, and those with high household incomes. Over 60% of household debt was held by those under 45 years of age, and nearly one-half was held by couples with children.
- Household debt was more unequally distributed in populations that are considered more economically vulnerable, such as the less-educated, unattached individuals and renters. Conversely, debt was more equally distributed among the better-educated, couples with children, people with higher household incomes and mortgagees.
- Debt was higher in some regions—particularly in areas with higher housing costs. Households in British Columbia, Alberta and or Ontario owed, on average, between $124,700 and $157,700, compared to the national average of $114,400.
- Those who were more likely to correctly answer questions related to financial knowledge and had higher levels of self-assessed financial knowledge were also more likely to have higher levels of debt, even when other characteristics such as income, age and education were taken into account.

Labour Force Survey: 2011 year-end review

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- The labour market continued to recover through most of 2011, but there were signs of weakness towards the end of the year. Employment and aggregate actual hours of work surpassed previous highs, while the employment rate remained below pre-downturn levels.
- Employment growth was entirely in full-time jobs, with the greatest absolute employment gains in Alberta (99,000) and Ontario (85,000).
- Employment growth was concentrated among prime-age and older workers. Employment fell for youth and youth unemployment remained stubbornly high—ending the year at 14.1%.
- Employment grew strongly for landed immigrants who had been in Canada at least 10 years, but their unemployment rate edged up to 7.1% due to higher participation in the labour market. Just the opposite occurred for immigrants who had landed in the previous 5 years: employment fell by 6.0%, but a decreasing participation rate also led to a drop in the unemployment rate.
- In 2011, the employment rate among Aboriginal peoples increased by 2.7 percentage points after declining 5.6 percentage points from 2008 to 2010. Employment rates increased for all age groups except for those 55 and over in 2011, with the largest absolute increase among prime-age Aboriginal peoples.
- Overall, job growth in the service sector (1.4%) outpaced the goods sector (0.2%), but there were pockets of strength and weakness in each sector.

Job-related training of older workers

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- Older workers were significantly less likely to take job-related training than their core-age counterparts. Between July 2007 and June 2008, 32% of workers age 55 to 64 took some training compared to 45% of those age 25 to 54. The age gap persisted even after labour market factors and personal characteristics were taken into consideration.
- Older workers with lower personal income, less than postsecondary education, temporary employment, and sales or service jobs, along with those working in the private sector and goods-producing industries were significantly less likely to participate in training than others the same age.
- The training gap between older and younger workers has narrowed over time as the training rate for older workers more than doubled from 1991 to 2008. The ratio of core-age to older-worker training rates stood at 1.4 in 2008, compared to 2.5 in 1991.
- About 61% of the increase in the training participation rate of older workers was attributed to increases in educational attainment and changes in the types of jobs held by more recent cohorts.

Youth neither enrolled nor employed

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- The percentage of all Canadian youth age 15 to 29 that are neither in education nor employment (NEET) has ranged between 12% and 14% over the past decade, a rate that is relatively low among the G7 countries.
- In 2011, 44% of all youth were students and 43% were employed. The remaining 13% were NEET— 5.7% unemployed and 7.5% not in the labour force (NILF).
- About 55,000 youth had been looking for a job for more than six months in 2011, representing 1% of all youth and 14% of unemployed youth.
- Lower levels of education were associated with higher rates of youth unemployment and long-term unemployment.
- Of the 82% of NILF youth who did not want a job, 5% had future work arrangements, 6% were permanently unable to work, 7% were non-traditional students, 20% had no known activity but had young children at home, and 44% had no known activity and no children at home.

What's new?

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- **From Statistics Canada**

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  Factors in provincial labour productivity growth

  Firm entry and exit in Canada

  Health of First Nations children living off reserve and Métis children

  Is Canada losing its status as a debtor nation?

  Market expansion and productivity growth

  The Canadian population in 2011

  The self-employment choices of children of immigrants

  Self-employment and children of immigrants

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- **From other organizations**

  Americans do IT better

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  Does inequality lead to a financial crisis?

  Housing prices and birth rates

  Housing booms and city centres

  What explains trends in household debt in Canada?

  Why don't women patent?

Perspectives

Household debt in Canada

Raj K. Chawla and Sharanjit Uppal

Many Canadians use debt to finance the purchase of a new home, acquire goods and services, or invest in education. In recent years, both mortgage debt and consumer debt have increased significantly (Chawla 2011). In 1980, the ratio of household debt to personal disposable income was 66%; that ratio recently passed the 150% figure (Statistics Canada 2011). This means that, in aggregate, households owed more than $1.50 for every dollar of disposable income. Household debt is therefore an increasingly important component of the finances of many Canadian families.

Although estimates of household debt are produced on a regular basis at the aggregate level, less is known about the individual characteristics of borrowers. The Survey of Financial Security (SFS), last conducted in 2005 (and prior to that, in 1999), is one of the primary sources of information on household finances. Correspondingly, studies examining the characteristics of Canadian borrowers are relatively rare (Brighton and Connidis 1982; Schwartz 1999).

The 2009 Canadian Financial Capability Survey (CFCS), supported by the Department of Finance Canada and Human Resources and Skills Development Canada, was conducted to assess the financial knowledge, saving patterns and credit use of Canadians. It included questions on the assets and debts of survey respondents (see *Data source and definitions*). The CFCS is the most current source of data on the characteristics of Canadian borrowers collected by Statistics Canada.

One aim of the survey was to collect information on financial literacy. The Task Force on Financial Literacy defined financial literacy as having the knowledge, skills

Data source and definitions

The analysis contained in this study is based on the 2009 Canadian Financial Capability Survey (CFCS). This survey was sponsored by Human Resources and Skills Development Canada, the Department of Finance Canada and the Financial Consumer Agency of Canada to assess Canadians' knowledge and abilities related to handling their finances, including budgeting, saving for retirement and children's postsecondary education, assets held, mortgages and consumer debts owed. The survey also collected information on the sources Canadians used to improve their financial knowledge and abilities to handle and improve their finances, day-to-day money management, and general financial planning.

The survey received responses from 15,519 persons 18 years of age and over covering sociodemographic and employment characteristics, sources of income, types of assets held and debts owed, and other behavioural characteristics. In the vast majority of cases (about 90%), survey respondents were those responsible for decisions related to ongoing household expenses and financial management. Most of this information was in terms of "yes/no" format with separate codes for "refused," "don't know," "not stated," and "valid skip." Quantitative information was sought on pre-tax total income, the household's total income, asset holdings, debts and liabilities, and wealth. Missing information on income was imputed whereas total assets, total debts and liabilities, and wealth were left with a separate code. Because of the low response rate to the assets portion of the survey (about 50%), assets-related variables are not used in this paper. Regarding the debt section, 84% of those in the sample provided usable data on their debt status and the amount of total debt outstanding. The valid response range for total debt was greater than $0 and less than or equal to $5 million.

The total household debt includes mortgage debt on principal residence, vacation home and other real estate, and consumer debt. The latter includes debt outstanding on credit cards, personal and home equity lines of credit, secured and unsecured loans from banks and other institutions, and unpaid bills (including taxes, rent, etc.).

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and confidence to make responsible financial decisions (Department of Finance Canada 2010).[1] In the CFCS, financial literacy was measured by 14 multiple-choice questions related to inflation and interest rates, credit reports and credit ratings, stocks and risk, insurance, taxation, debts and loans, and banking fees. These questions covered a wide range of financial topics and concepts indicative of financial literacy rather than just numerical ability. Importantly, "do not know" was always an option so respondents were not required to come up with an answer.

Given its focus on financial literacy, the CFCS can be used to examine whether the presence or amount of debt is correlated with financial knowledge—a new contribution to the Canadian literature on household debt.

This paper begins by examining the characteristics of debtors, focusing on two questions. Are debtors more likely to be found in certain types of households? Which households accumulate larger amounts of debt? The article then investigates whether debts are associated with the level of financial knowledge or indicators of financial attitudes. It also examines whether the relationships between debt and financial capability persist when other characteristics like income and educational attainment are taken into account.

Debt is the outcome of a contract between lenders and borrowers. Lending institutions will consider many factors in reviewing the loan applications of potential borrowers that affect both the incidence and level of debt. Such factors may include the level and stability of the applicant's income, his or her current debt load, collateral assets, and the market value of mortgaged properties, among others. Thus the level of outstanding debt is not just a function of borrowers' demands but also the lenders' assessment of borrowers' ability to repay or provide sufficient collateral assets.

Who are the borrowers?

In the CFCS, household debt is defined as mortgage debt on all residences and real estate, and consumer debt (including debt outstanding on credit cards, personal and home equity lines of credit, secured and unsecured loans from banks and other institutions, and unpaid bills). Of those who answered the debt questions, two-thirds said that they held at least one type of debt. In 2009, borrowers had an average of $114,400 per debtor[2] (Table 1).

Consistent with the life-cycle theory (Modigliani and Brumberg 1954; Friedman 1957; Browning and Crossley 2001), younger people and parents with children at home were more likely to hold debt. Individuals under 45 made up 45% of the population, but 54% of borrowers. Similarly, married people with children accounted for 30% of the overall population, but 39% of debtors. They were also more likely to have higher levels of debt. Couples with children held one-half of all household debt, with an average debt of $144,600, higher than the overall average of $114,400. Similarly, individuals under 45 held 61% of household debt, $129,200 on average.

Higher income was associated with an increased probability of holding debt and a higher debt load. Individuals who had a household income of at least $100,000 represented 31% of the population but 37% of those with debt. Moreover, individuals with higher household incomes had more debt, likely due to their greater debt-carrying capacity.[3] The total amount of household debt was particularly concentrated among those with at least $100,000 in household income as they accounted for 37% of all debtors but held 56% of all household debt (averaging $172,400 per borrower). In comparison, those who had a household income of at least $50,000 but less than $100,000 represented 38% of debtors but held 31% of household debt (averaging $95,400 per borrower), while those with less than $50,000 in household income held 13% (or $57,700 per borrower), even though they made up 25% of debtors.

Higher education levels were also associated with an increased probability of holding debt and higher average debt. Individuals with at least some postsecondary education comprised about one-half of the population but almost 60% of those with debt. And university graduates had an average debt that was 60% higher than those with less than postsecondary education—$145,400 compared to $90,900.

Although the distribution of borrowers across regions was similar to the distribution of the population as a whole, the amount owed was more concentrated in some regions. Debtors in British Columbia, Alberta and Ontario owed, on average, between $124,700 and $157,700, compared to the national average of $114,400. Together, households in these provinces held 3 out of 4 dollars of household debt in the country. The concentration of debt in these regions generally corresponds to higher real estate prices (TD Economics 2011).

Table 1 Distribution of borrowers and total debt across selected characteristics[1]

	All persons[1]	Borrowers	Total debt outstanding	Mean debt per borrower
Persons 18 and over ('000)	**20,731**	**13,773**	...	...
		%		$
Total	**100**	**100**	**100**	**114,400**
Age				
Under 45	45	54	61	129,200
45 to 64	37	38	34	102,800
65 and over	18	7	4	66,000
Household type				
Unattached individuals	15	10	6	63,000
Married couples only	34	30	28	105,200
Married couples with children and/or relatives	30	39	50	144,600
Lone parents	5	6	5	100,800
Others	16	14	12	94,000
Education[2]				
Less than postsecondary	47	41	33	90,900
Postsecondary: non-university	24	27	27	114,300
Postsecondary: university	28	31	40	145,400
Household income before tax				
Under $50,000	35	25	13	57,700
$50,000 to $99,999	34	38	31	95,400
$100,000 and over	31	37	56	172,400
Region				
Atlantic	7	7	4	69,300
Quebec	26	25	18	78,900
Ontario	37	37	40	124,700
Manitoba and Saskatchewan	7	6	5	84,900
Alberta	11	12	16	157,700
British Columbia	13	13	17	155,500
Tenure[2]				
Owner without a mortgage	34	20	11	64,000
Owner with a mortgage	39	58	82	161,200
Renter	26	22	7	36,200

1. Excludes those who did not answer the CFCS debt module.
2. Excludes those with missing information on this characteristic.
Source: Statistics Canada, Canadian Financial Capability Survey (CFCS), 2009.

A close relationship was also found between home ownership and debt as households with mortgages accounted for 39% of the population but 58% of debtors. Conversely, homeowners without a mortgage accounted for 34% of the population but 62% of all households without any debt.[4]

Renters (26% of the population) were also less likely to hold debt, as they accounted for one-third of households without any debt.[5]

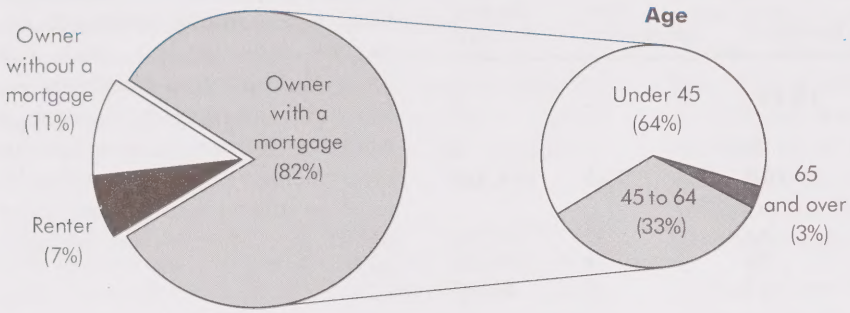
Debt was concentrated among mortgagees, who held 82% of outstanding debt (averaging $161,200 per debtor). Conversely, homeowners without a mortgage held 11% and renters 7% of total debt. Almost two-thirds of mortgagees were under 45 (Chart A), and this group held more than one-half of outstanding debt. The concentration of debt among younger mortgagees falls in line with the life-cycle theory of consumption. For many mortgagees, housing is both a consumption item and an investment tool, which can also be used as collateral to finance other needs (see *Mortgage and consumer debt*).

Dispersion of household debt

Even though some groups have higher average debt levels than others, this does not necessarily mean that debt is equally distributed *within* these groups. One method that can be used to look at debt dispersion is the Gini coefficient.[7] A higher value of the Gini coefficient indicates a greater concentration in the distribution—the situation where a relatively small proportion of borrowers hold a large proportion of total debt. Looking only at borrowers, the 2009 Gini coefficient of household debt was 0.611, compared with 0.372 for household income for the same group (Table 3). This means that debt is about 64% more concentrated among borrowing households than income in those same households. Moreover, debt was more concentrated than income among borrowers in all sociodemographic groups.

Nevertheless, household debt was more unequally distributed within some groups of borrowers than others. Groups with a higher Gini coefficient included those who had less than a postsecondary education, unattached individuals and people in 'other' family types, and those with less than $50,000

Chart A Distribution of total debt outstanding by tenure and age



Source: Statistics Canada, Canadian Financial Capability Survey, 2009.

in household income. Because individuals in these groups may have fewer resources to deal with debt payments, the most indebted within these groups may be more at risk of defaulting because they hold a large portion of the group debt.[8]

Conversely, debt was more equally distributed among youth, those with a postsecondary education and those who had at least $50,000 in family income (the latter hold a disproportionate amount of outstanding debt).

Mortgage and consumer debt

The 2009 CFCS did not collect information on the relative contribution of consumer debt and mortgage debt to overall household debt. However, it collected information on the presence of six types of consumer debts: student loans, payday loans, other loans (excluding the first two), credit card balances, personal and home equity lines of credit, and unpaid bills (e.g., taxes, rent).[6] The proportion of debtors with an outstanding credit card balance was 48%; 41% had an outstanding line of credit; 32% had other loans (e.g., personal loans); 18% had student loans; 3% had other debts (e.g., unpaid bills); and less than 1% had payday loans.

Debtors with a mortgage were more likely to have more than one source of consumer debt. For instance, 48% of those with just one type of consumer debt were mortgagees, compared with 65% among those who had at least three types of consumer debts.

As the homeowner ages, both mortgage and consumer debt decline. Among those under 45, the proportion of debtors with three or more consumer loans was 18%, but this proportion was 11% among those age 45 to 64 and just 3% among those at least 65 years of age (Table 2). Conversely, the proportion of debtors using only one source of consumer debt rose with age, from 39% among those under 45, to 62% among those at least 65 years of age.

Table 2 Distribution of debtors by age, tenure and number of consumer debts held

	Total	Owner without a mortgage	Owner with a mortgage	Renter
			'000	
All debtors	**13,773**	**2,705**	**8,022**	**3,009**
			%	
None	15	5	23	5
One	42	62	34	45
Two	28	27	27	33
At least three	14	7	16	17
			'000	
Under 45 years of age	7,481	871	4,577	1,998
			%	
None	14	5	19	4
One	39	56	34	41
Two	30	30	28	33
At least three	18	9	19	21
			'000	
45 to 64 years of age	5,286	1,367	3,094	825
			%	
None	18	4	26	8
One	43	63	34	45
Two	28	26	28	36
At least three	11	7	13	12
			'000	
65 years of age and over	1,006	466	352	185
			%	
None	18	6	39	8
One	62	70	43	74
Two	17	22	12	15
At least three	3	2	6	3

Source: Statistics Canada, Canadian Financial Capability Survey, 2009.

Table 3 Gini coefficients of household debt and income before tax among debtors

	Debt outstanding	Income before tax
	Gini coefficient	
Total	**0.611**	**0.372**
Age		
Under 45	0.583	0.347
45 to 64	0.614	0.382
65 and over	0.739	0.439
Household type		
Unattached individuals	0.669	0.387
Married couples only	0.612	0.342
Married couples with children and/or relatives	0.541	0.326
Lone parents	0.628	0.479
Others	0.710	0.394
Education[1]		
Less than postsecondary	0.635	0.382
Postsecondary: non-university	0.602	0.339
Postsecondary: university	0.572	0.352
Household income before tax		
Under $50,000	0.691	0.220
$50,000 to $99,999	0.553	0.113
$100,000 and over	0.559	0.228
Region		
Atlantic	0.560	0.368
Quebec	0.602	0.352
Ontario	0.589	0.364
Manitoba and Saskatchewan	0.585	0.349
Alberta	0.579	0.389
British Columbia	0.632	0.381
Tenure[1]		
Owner without a mortgage	0.747	0.408
Owner with a mortgage	0.485	0.329
Renter	0.693	0.391

1. Excludes those with missing information on this characteristic.
Source: Statistics Canada, Canadian Financial Capability Survey, 2009.

Table 3 also indicates that owners without a mortgage and renters had higher levels of debt inequality—even if differences between them are, by definition, mostly due to differences in consumer debt. This means that even though renters and mortgage-free homeowners held just 18% of household debt, most debt was concentrated among a relatively small proportion of the group.

Financial literacy

A large proportion of total household debt is held by people who are in the accumulation stages of their life cycle and/or who have higher-than-average incomes. Although their borrowing accords with life-cycle smoothing and has passed institutional lending standards, the extent to which borrowers account for the risk of interest rate increases, housing price declines, income interruptions or other such factors in their borrowing decisions is not known. To some extent, such risks may be mitigated by the financial literacy of borrowers since those who are more financially capable would be expected to better understand the risks associated with borrowing and how to best mitigate these risks.[9]

The question as to whether financial literacy is associated with varying debt metrics has been studied previously. Gerardi et al. (2010) found that lower financial literacy was associated with a higher probability of defaults and foreclosures in the U.S. housing market. Using data from the CFCS, Hurst (2011) examined the relationship between financial literacy and several indicators of financial insecurity, but found little relationship between the two. This paper contributes to the literature by examining the relationship between household debt levels and financial literacy.

The CFCS measured the financial literacy of survey respondents by asking a series of questions on financial principles and practices, which can be used to test whether the presence, type or amount of debt is correlated with financial literacy (see *Appendix* for the questions and answers). The financial literacy score is the sum of correct responses to these questions. In 2009, those who had some kind of debt obtained an average score of 72% on the financial quiz, compared to an average of 68% among those without debt (Table 4). The score was higher among those who had at least $250,000 in debt (representing about 13% of debtors), who averaged 76%, while those who had less than $50,000 in debt averaged 70%.

Because these questions comprise just one method of estimating the overall financial knowledge of individuals, other measures of financial literacy were examined. One alternative was to examine how respondents perceived their own financial knowledge. About one-half of those owing at least $250,000 reported themselves as "knowledgeable" or "very knowledgeable" in financial matters, compared to just over one-third

Table 4 Financial literacy across categories of household debt

		Household debt					
	No debt	Under $50,000	$50,000 to $149,999	$150,000 to $249,999	$250,000 and over	All debtors	All persons[1]
				%			
Average financial literacy	68	70	73	74	76	72	71
				% distribution of persons			
Level of financial knowledge	100	100	100	100	100	100	100
Very knowledgeable	6	6	6	5	9	6	6
Knowledgeable	32	28	30	30	36	30	30
Fairly knowledgeable	40	46	48	48	41	46	44
Not very knowledgeable	18	18	15	15	12	16	17
Not stated	5	2	2	2	3	2	3

1. Excludes those who did not answer the CFCS debt module.
Source: Statistics Canada, Canadian Financial Capability Survey (CFCS), 2009.

of other borrowers. These results, together with the higher scores obtained for high debtors, suggest that higher debt is in some way correlated with financial literacy.

However, the association between debt and financial literacy may not be straightforward. For example, it may be that high debtors are more knowledgeable about finances since they tend to have higher incomes (Keown 2011). Any examination of the link between household debt and financial literacy should therefore control for other factors that potentially correlate with financial knowledge.[10] This can be done by estimating a Tobit model, with household debt as a dependent variable and financial literacy variables as independent variables. One advantage of the Tobit model is that it estimates the outcome within a specified range. This is important because the debt distribution is left-censored (meaning that no one can report "negative" debt amounts). Hence, the Tobit model accounts for the fact that a significant portion of the population is "left censored" (i.e., people without any debt). All results are expressed in additional debt dollars that an individual would incur if the independent variable increased by one unit (or, in the case of dummy variables, by how much debt levels vary from the reference category).

When only the financial scores and geographical controls are included in the model (Table 5, Model 1) the estimates suggest a relationship between debt and financial literacy since each unit increase in the financial score variable was associated with a $14,700 increase in debt. However, when household income was included as a variable, the strength of the relationship was reduced (Model 2) to $9,100 with each additional point in the financial score variable. When a full set of controls was included (Model 3), the relationship between financial scores and debt became even weaker—to $5,100 per additional point.[11]

In fact, other variables also had a strong relationship with higher debt levels. Home ownership and household income were both associated with higher debt levels. The debt of homeowners was estimated to be $100,000 above that of renters; similarly, the debt level of those who had at least $100,000 in household income was nearly $60,000 above that of people who had less than $50,000 in household income. An association with higher levels of debt was also found among younger individuals, recent immigrants, highly educated people and employed individuals. Conversely, lower levels of debt were found among older individuals, retired people, and people in families without children.[12]

Another model was estimated using self-assessed financial knowledge variables instead of financial test scores (Table 5, Model 4). In line with the test results, this model revealed a positive relationship between debt and individuals' own assessment of their financial knowledge. Those who said they were knowledgeable about managing household finances held more debt than those who said they were not very knowledgeable. For example, the debt level associated with those who said that they were "very knowledgeable" was

Table 5 Results from estimating a Tobit model of household debt[1]

	Model 1	Model 2	Model 3	Model 4
			$	
Financial score	**14,700**	**9,100**	**5,100**	...
Self-assesed financial knowledge				
Not very knowledgeable	...	...	...	ref.
Fairly knowledgeable	...	...	...	8,600
Knowledgeable	...	...	...	16,400
Very knowledgeable	...	...	...	29,100
Household income				
Under $50,000	...	ref.	ref.	ref.
$50,000 to $99,999	...	86,000	18,400	18,400
$100,000 and over	...	157,200	59,500	61,500
Sex				
Men	...	...	15,300	16,100
Women	...	...	ref.	ref.
Age				
18 to 44	...	...	51,800	52,100
45 to 64	...	...	ref.	ref.
65 and over	...	...	-66,100	-71,300
Education				
Less than high school graduation	...	...	ref.	ref.
High school graduation	...	...	9,600	14,100
Some postsecondary/trades/diploma	...	...	26,000	32,600
University degree	...	...	26,200	35,200
Household type				
Unattached	...	...	-52,700	-50,800
Married/common-law without children or no children under 25	...	...	-36,900	-37,000
Married/common-law with youngest child under 25	...	...	ref.	ref.
Lone parents	...	...	2,700	5,400
Others	...	...	-69,800	-74,800
Immigrant status				
Canadian-born	...	...	ref.	ref.
Immigrated before 1999	...	...	23,400	20,200
Immigrated between 1999 and 2009	...	...	33,700	26,100
Labour force status				
Employed	...	...	ref.	ref.
Retired	...	...	-92,600	-95,000
Others	...	...	-36,800	-36,300
Tenure				
Renter	...	...	ref.	ref.
Homeowner	...	...	99,900	102,400

1. Dependent variable: total household debt. The coefficient denotes the difference in debt between the reference group (ref.) and a given characteristic category. All differences were significantly different at the 0.01 level with the exception of that pertaining to "[illegible]" Model 3.

Note: All models also controlled for provincial differences.

Source: Statistics Canada, Canadian Financial Capability Survey, 2009.

$29,100 higher than that for those who said they were "not very knowledgeable." The results were very similar to Model 3 for other variables.

Financial perceptions and attitudes

The CFCS also included questions to gauge the financial perceptions and attitudes of Canadians (Table 6). Questions asked whether the respondent was "good or very good" at keeping track of money, making ends meet, shopping around to get the best financial products, and staying informed on financial issues. The respondents were also asked whether they agreed with a series of statements meant to gauge their interest and attitude vis-à-vis financial matters. Finally, they were asked whether they received financial advice, and whether they ever made a financial decision they later regretted.

Borrowers with the highest levels of household debt (at least $250,000) were more likely to respond that they were good or very good at shopping around to get the best financial products (like loans and insurance rates) and staying informed on financial issues. In addition, they were also more likely to say that they "enjoyed financial matters," "had a clear idea of financial products needed," "knew enough about investments to make the right choices," and "always researched their choices thoroughly"—thereby suggesting that high levels of debt may be associated with a greater interest in finances. On the other hand, 58% of individuals with at least $250,000 in household debt also reported that they had made a financial decision that they later regretted, compared to 45% of those with less than $50,000 in household debt and 36% of those with no debt at all.

Table 6 Percentage of total respondents by attributes on financial variables

	Household debt					
	No debt	Under $50,000	$50,000 to $149,999	$150,000 to $249,999	$250,000 and over	All debtors	All persons[1]
	%						
Good or very good at...							
Keeping track of money	72	66	69	67	68	67	69
Making ends meet	82	75	77	77	80	77	78
Shopping around to get best products	59	61	65	66	69	64	62
Staying informed on financial issues	51	44	48	48	55	47	49
Agree with the following statements							
I enjoy dealing with financial matters	43	39	43	45	49	42	42
I trust professional advisors	52	60	62	62	59	61	58
I get advice from friends and family	40	47	43	47	45	46	44
I got a clear idea of financial products needed	76	72	74	73	78	74	74
I keep a close watch on financial affairs	83	82	82	82	84	82	82
I know enough about investments to make right choices	58	49	54	53	61	53	54
I always research my choices thoroughly	73	71	72	74	78	73	73
Ever regretted financial decision	36	45	50	50	58	49	45
Received financial advice for...							
Retirement planning	17	21	29	29	30	25	23
Children's education	3	8	12	14	18	12	9
Estate planning	6	5	7	9	12	7	7
Insurance	8	15	19	25	27	19	15
Tax planning	10	11	16	17	23	15	13
General financial planning	22	24	30	31	37	29	26
Didn't use any advice	63	55	48	44	40	50	54

1. Excludes those who did not answer the CFCS debt module.
Source: Statistics Canada, Canadian Financial Capability Survey (CFCS), 2009.

With regard to financial advice, individuals with debt of at least $250,000 were also more likely to seek financial advice on financing children's education (18% versus 8% for those with debt less than $50,000), insurance (27% versus 15%), tax planning (23% versus 11%) and general financial planning (37% versus 24%). They were also less likely to report that they didn't seek any advice at all, although 40% said they didn't receive advice (compared to 63% among non-debtors).

Financial attitudes may also be correlated with other sociodemographic characteristics. Logit models were estimated to study the association between debt and key financial attitude variables: whether they regretted making some decisions, and whether they received financial advice (data not shown). As the descriptive results suggested, higher levels of debt corresponded to a higher likelihood of receiving financial advice and with financial regrets—even when other variables (like household income and education) were taken into account.

Conclusion

Increases in aggregate household debt burdens since the 1980s have renewed interest in household debt and underscored the risks to household balance sheets due to rising interest rates or falling asset prices. Given this situation, understanding the characteristics of borrowers, particularly those with higher levels of debt, facilitates a greater understanding of the risks in the household sector. In particular, since holding debt often involves a set of choices, understanding whether people with high levels of debt have corresponding levels of financial literacy is important.

As noted in earlier studies, the incidence and level of household debt are higher in certain population groups: younger homeowners, young families with children, the better-educated, and those with higher household incomes. Indeed, over 60% of household debt was held by those under 45 years of age, and nearly one-half was held by couples with children.

Debt, however, was not equally distributed *within* groups. Although they held a small portion of the total, household debt was more unequally distributed in populations that are considered more economically vulnerable, such as the less-educated, unattached individuals and renters. This is consistent with previous research, which showed that these groups were more likely to experience financial insecurity (Hurst 2011). Conversely, debt was more equally distributed among the better-educated, couples with children, people with higher household incomes, and mortgagees.

Although previous research found little evidence of a relationship between high debt ratios and financial literacy (Hurst 2011), this study found that both financial literacy and self-assessed financial knowledge were associated with higher absolute debt levels, even when other characteristics had been taken into account. However, other characteristics—like home ownership and household income—were also strongly associated with higher debt loads. In addition to having better financial knowledge, people with a larger household debt load (defined as those who had at least $250,000 in household debt) were more likely to perceive themselves as good financial managers, and were more likely than others to seek financial advice on a variety of financial matters.

Perspectives

Notes

1. For other definitions of financial literacy used in recent literature, see Remund (2010). Also, the October 2011 issue of the *Journal of Pension Economics and Finance* contains papers discussing financial literacy for a number of countries around the world.
2. This is consistent with estimates found in other reports (Sauvé 2011).
3. Marshall (2011) also finds higher levels of debt among high-income seniors. Higher levels of collateral assets and favourable lending conditions may also influence the borrowing practices of high-income households.
4. Among homeowners without a mortgage, their debt was mostly related to lines of credit and credit cards.
5. Not all individuals have equal access to credit markets as financial lenders ration credit. This also helps explain why lower-income groups and renters have smaller debt loads than others.
6. The 2009 CFCS collected information on indebtedness but not on amounts outstanding on the six types of consumer debt specified above.
7. A Gini coefficient is a measure of statistical dispersion generally used to measure the inequality of a distribution. The value of the Gini coefficient always lies between 0 and 1. A value closer to 1 indicates greater concentration (more inequality). Since the Gini coefficient is insensitive to the size of the variable of interest, it can be used to compare the dispersion of household debt relative to household income.

Appendix CFCS financial quiz questions

A unique feature of the Canadian Financial Capability Survey is a series of 14 questions that were designed to test respondents' knowledge of financial principles and practices. The questions and answers are the following:

1. **If the inflation rate is 5% and the interest rate you get on your savings is 3%, will your savings have at least as much buying power in a year's time?**
   a) Yes
   b) No

2. **A credit report is... ?**
   a) A list of your financial assets and liabilities
   b) A monthly credit card statement
   c) A loan and bill payment history
   d) A credit line with a financial institution

3. **Who insures your stocks in the stock market?**
   a) The National Deposit Insurance Corporation
   b) The Securities and Exchange Commission
   c) The Bank of Canada
   d) No one

4. **True or false...**
   By using unit pricing at the grocery store, you can easily compare the cost of any brand and any package size.
   a) True
   b) False

5. **If each of the following persons had the same amount of take home pay, who would need the greatest amount of life insurance?**
   a) A young single woman with two young children
   b) A young single woman without children
   c) An elderly retired man, with a wife who is also retired
   d) A young married man without children

6. **If you had a savings account at a bank, which of the following statements would be correct concerning the interest rate that you would earn on this account?**
   a) Sales tax may be charged on the interest that you earn
   b) You cannot earn interest until you pass your 18th birthday
   c) Earnings from savings account interest may not be taxed
   d) Income tax may be charged on the interest if your income is high enough

7. **Inflation can cause difficulty in many ways. Which group would have the greatest problem during periods of high inflation that lasts several years?**
   a) Young working couples with no children
   b) Young working couples with children
   c) Older working couples saving for retirement
   d) Older people living on fixed retirement income

8. **Lindsay has saved $12,000 for her university expenses by working part-time. Her plan is to start university next year and she needs all of the money she saved. Which of the following is the safest place for her university money?**
   a) Corporate bonds
   b) Mutual Funds
   c) A bank savings account
   d) Locked in a safe at home
   e) Stocks

9. **Which of the following types of investment would best protect the purchasing power of a family's savings in the event of a sudden increase in inflation?**
   a) A twenty-five year corporate bond
   b) A house financed with a fixed-rate mortgage
   c) A 10-year bond issued by a corporation
   d) A certificate of deposit at a bank

10. **Under which of the following circumstances would it be financially beneficial to borrow money to buy something now and repay it with future income?**
    a) When something goes on sale
    b) When the interest on the loan is greater than the interest obtained from a savings account
    c) When buying something on credit allows someone to get a much better paying job
    d) It is always more beneficial to borrow money to buy something now and repay it with future income

11. **Which of the following statements is <u>not</u> correct about most ATM (Automated Teller Machine) cards?**
    a) You can get cash anywhere in the world with no fee
    b) You must have a bank account to have an ATM card
    c) You can generally get cash 24 hours-a-day
    d) You can generally obtain information concerning your bank balance at an ATM machine

12. **Which of the following can hurt your credit rating?**
    a) Making late payments on loans and debts
    b) Staying in one job too long
    c) Living in the same location too long
    d) Using your credit card frequently for purchases

13. **What can affect the amount of interest that you would pay on a loan?**
    a) Your credit rating
    b) How much you borrow
    c) How long you take to repay the loan
    d) All of the above

14. **Which of the following will help lower the cost of a house?**
    a) Paying off the mortgage over a long period of time
    b) Agreeing to pay the current rate of interest on the mortgage for as many years as possible
    c) Making a larger down payment at the time of purchase
    d) Making a smaller down payment at the time of purchase

Answers

1) b	4) a	7) d	10) c	13) d
2) c	5) a	8) c	11) a	14) c
3) d	6) c and d	9) b	12) a	

Appendix CFCS financial quiz questions (concluded)

Table 7 shows the proportion of those who correctly answered questions within debt-size categories.

For some of the 14 questions, the difference between categories of debt size was not very large but differences were larger for other categories. For instance, 56% of those in the highest category of debt size (at least $250,000) correctly answered Question 2 on the credit report, while only 46% of those with lower debt levels (less than $50,000) did so. Question 7 on inflation also showed relatively large differences in the proportions of correct answers given between the larger and lower debt groups (63% versus 53%), as did Question 11 on ATM machines (84% versus 73%). Other questions showing notable differences between higher and lower debtors included Question 3 about the insurance of stocks, Question 8 about the safety of placements, Question 9 about options to protect the loss of purchasing power, and Question 13 about the factors influencing the interest rate of a loan. In all cases, the high debtors fared better than those with lower levels of debt. More information about the CFCS financial capability questions can be found in McKay (2011).

Table 7 Proportion who correctly answered financial quiz question

		Household debt					
	No debt	Under $50,000	$50,000 to $149,999	$150,000 to $249,999	$250,000 and over	All debtors	All persons[1]
Question				%			
1	60	67	72	70	73	69	66
2	29	46	51	53	56	49	42
3	32	34	36	38	42	36	35
4	66	71	73	76	77	73	71
5	71	77	83	80	79	80	77
6	55	60	67	63	65	63	60
7	48	53	57	60	63	57	54
8	57	64	65	67	71	66	63
9	31	39	42	46	47	42	38
10	19	27	32	31	29	29	26
11	55	73	79	79	84	77	69
12	77	90	93	93	92	92	87
13	59	69	74	76	76	72	68
14	76	88	92	91	91	90	85

1. Excludes those who did not answer the CFCS debt module.
Source: Statistics Canada, Canadian Financial Capability Survey (CFCS), 2009.

8. Accordingly, Hurst (2011) found that individuals in these categories were more likely to have a higher total debt-service ratio, a higher debt-to-pre-tax household income ratio, and a higher debt-to-asset ratio, even after accounting for all other socioeconomic characteristics. Hurst limited his population to those under age 65.

9. See Department of Finance Canada (2010) for a discussion on the importance of financial literacy.

10. In addition, there is a possibility of causality between debt and financial literacy but the direction of causality is not clear. Debt may motivate borrowers to become more knowledgeable about their finances. Alternatively, increased financial capability may affect the type or level of debt. This paper does not attempt to draw any causal inferences but focuses on associations.

11. A referee pointed out that questions 9 and 10 on the financial quiz could have more than one correct answer. Additional models were estimated by recalculating the financial score in two ways: (a) by having multiple correct answers for those two questions; and (b) by excluding those two questions. The conclusions did not change.

12. Models were also estimated using quartiles of financial scores instead of numbers, and quartiles of income instead of the three groups. The conclusions did not change.

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Labour Force Survey: 2011 year-end review

Ted Wannell and Jeannine Usalcas

Strong start, weaker finish

The labour market continued to recover through most of 2011, but there were signs of weakness towards the end of the year (Chart A). Employment increased by 1.3% from December 2010 to September 2011 then fell by 0.3% before recovering somewhat in December 2011, for a 12-month increase of 1.1%. This represented a net gain of 190,000 jobs over December 2010, all in full-time employment.

As more people found employment in the first-three quarters of 2011, the unemployment rate fell steadily from 7.6% in December 2010 to 7.2% in September 2011—its lowest point since December 2008. The rate subsequently increased by 0.3 percentage points to end the year at 7.5%, just under its December 2010 level.

Despite employment increases over the year, the employment rate remained the same as in December 2010, at 61.7%. This is because employment growth kept pace with population growth (1.1%).

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While employment surpassed its pre-downturn level in January, actual hours worked did not reach this milestone until July. Actual hours grew by 1.9% from December to August and then remained essentially flat through the end of the year as small gains in the average number of hours per worker offset small decreases in employment.

Alberta accounts for more than one-half of net job creation

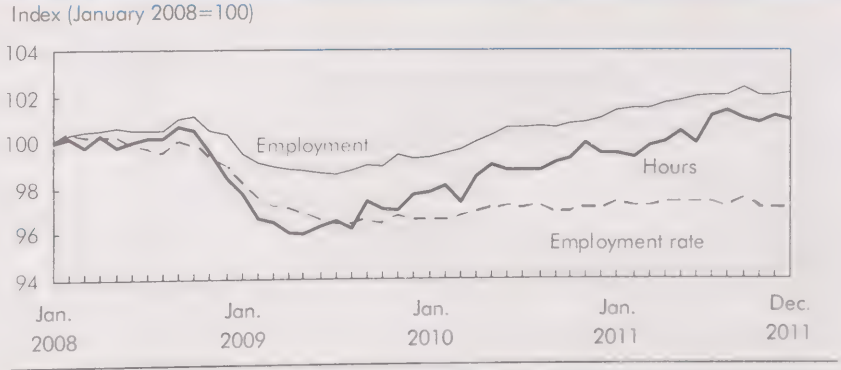
Over the course of 2011, employment increased in every province except Quebec (Chart B). Alberta added almost 100,000 jobs, more than one-half of the net gain for the entire country. Employment grew by 85,000 in Ontario and 33,000 in British Columbia, but fell by 56,000 in Quebec.

In percentage terms, employment grew at about the same pace in Atlantic Canada as in the western provinces. However, the unemployment rate remained much higher in Atlantic Canada than in the west, ranging from highs of 12.7% in Newfoundland and Labrador and 11.2% in Prince Edward Island to lows of 5.2% in Saskatchewan and 4.9% in Alberta.

Population age 55 and over grows by 282,000, driving workforce aging

Population aging continues to be a driving force in the labour market (Table 1). The largest cohorts of the

Chart A Employment rate slow to recover



Source: Statistics Canada, Labour Force Survey, January 2008 to December 2011, seasonally adjusted data.

Table 1 Employment by selected labour market characteristics

	December 2010	December 2011	Change	
	'000		'000	% change
Total employment[1]	**17,164.7**	**17,354.7**	**190.0**	**1.1**
Full-time	13,847.5	14,052.5	205.0	1.5
Part-time	3,317.2	3,302.2	-15.0	-0.5
Age and sex[1]				
Men	9,018.8	9,101.9	83.1	0.9
Women	8,145.9	8,252.8	106.9	1.3
Both sexes, 15 to 24	2,464.0	2,444.9	-19.1	-0.8
Men, 25 to 54	6,137.7	6,169.2	31.5	0.5
Women, 25 to 54	5,554.2	5,627.5	73.3	1.3
Men, 55 and over	1,651.4	1,706.3	54.9	3.3
Women, 55 and over	1,357.4	1,406.7	49.3	3.6
Class of worker[1]				
Public-sector employees	3,560.3	3,555.3	-5.0	-0.1
Private-sector employees	10,979.9	11,124.5	144.6	1.3
Self-employed	2,624.6	2,674.9	50.3	1.9
Province[1]				
Newfoundland and Labrador	222.9	227.2	4.3	1.9
Prince Edward Island	69.9	73.4	3.5	5.0
Nova Scotia	447.1	458.4	11.3	2.5
New Brunswick	353.4	354.5	1.1	0.3
Quebec	3,961.9	3,906.0	-55.9	-1.4
Ontario	6,669.0	6,753.5	84.5	1.3
Manitoba	620.6	626.5	5.9	1.0
Saskatchewan	524.7	528.0	3.3	0.6
Alberta	2,033.9	2,133.2	99.3	4.9
British Columbia	2,261.3	2,293.9	32.6	1.4
Industry[1]				
Goods-producing sector	3,787.1	3,793.9	6.8	0.2
Agriculture	297.9	306.3	8.4	2.8
Forestry, fishing, mining, quarrying, oil and gas	330.1	355.3	25.2	7.6
Utilities	147.8	133.8	-14.0	-9.5
Construction	1,229.1	1,264.9	35.8	2.9
Manufacturing	1,782.2	1,733.6	-48.6	-2.7
Service-producing sector	13,377.7	13,560.8	183.1	1.4
Trade	2,668.7	2,662.1	-6.6	-0.2
Transportation and warehousing	865.2	849.5	-15.7	-1.8
Finance, insurance, real estate and leasing	1,085.8	1,052.3	-33.5	-3.1
Professional, scientific and technical	1,272.8	1,352.3	79.5	6.2
Business, building and other support	677.2	661.0	-16.2	-2.4
Educational services	1,207.8	1,220.3	12.5	1.0
Health care and social assistance	2,055.8	2,111.8	56.0	2.7
Information, culture and recreation	769.2	772.6	3.4	0.4
Accommodation and food	1,054.9	1,120.3	65.4	6.2
Other	747.7	782.7	35.0	4.7
Public administration	972.6	975.9	3.3	0.3
Occupation[1]				
Management	1,504.9	1,491.6	-13.3	-0.9
Business, finance and administrative	3,129.4	3,099.3	-30.1	-1.0
Natural and applied sciences and related	1,256.5	1,273.3	16.8	1.3
Health	1,112.0	1,180.6	68.6	6.2
Social science, education, government service and religion	1,616.3	1,590.4	-25.9	-1.6
Art, culture, recreation and sport	544.5	594.6	50.1	9.2
Sales and service	4,131.6	4,155.2	23.6	0.6

Table 1 Employment by selected labour market characteristics (concluded)

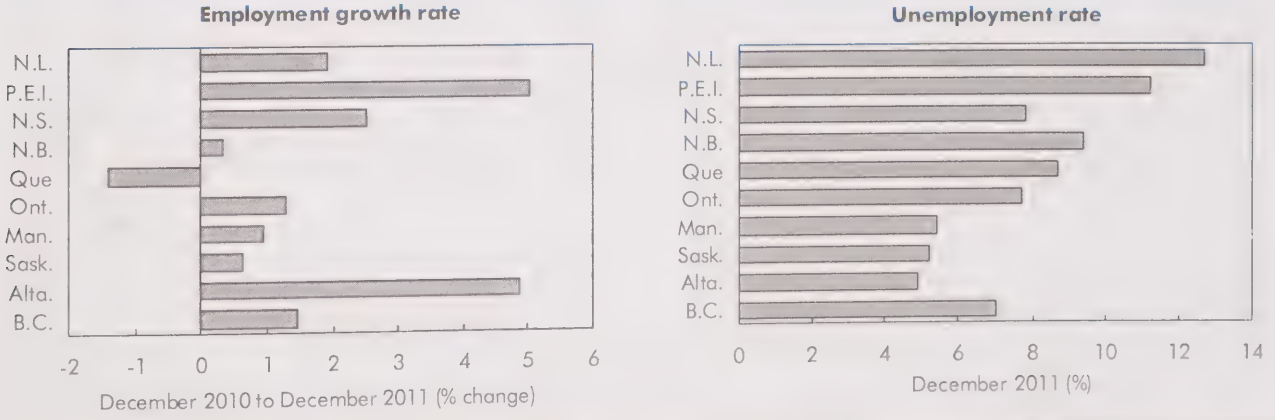
Trades, transport and equipment operators	2,564.0	2,632.0	68.0	2.7
Primary industry	510.7	514.6	3.9	0.8
Processing, manufacturing and utilities	794.9	823.0	28.1	3.5
Job status (employees only)[2]				
Permanent	12,659.5	12,748.3	88.8	0.7
Temporary	1,802.7	1,849.4	46.7	2.6
Educational attainment[2]				
Less than high school	1,762.9	1,767.9	5.0	0.3
High school graduate/some postsecondary	4,689.5	4,796.9	107.4	2.3
Postsecondary certificate or diploma	6,188.2	6,186.0	-2.2	0.0
University degree	4,446.7	4,521.0	74.3	1.7

1. Seasonally adjusted data.
2. Data not seasonally adjusted.
Source: Statistics Canada, Labour Force Survey, December 2010 and December 2011.

baby boom generation are starting to enter the 55-and-over age range, concentrating population growth in a group with lower participation rates. The aging of the population will thus have a depressing effect on the overall participation rate unless the participation rate of those 55 and over increases enough to offset this compositional effect. In fact, the participation rate of older Canadians edged up in 2011, entirely attributable to gains among older women.

Employment continued to grow among those 55 and over, almost entirely as a result of population growth of about 282,000 in this group. After 15 years of increases, the employment rates for men and women 55 and over ended the year very close to where they started. Employment rate declines among 65- to 69-year-old men and 60- to 64-year-old women offset small gains among other older age groups.

Chart B More jobs in East and West but unemployment remains higher in East



Source: Statistics Canada, Labour Force Survey, December 2010 to December 2011, seasonally adjusted data.

Workforce age 25 to 54 also increases

The employment rate of prime-age workers increased from 80.6% to 81.1%, December to December. The increase was mainly among prime-age women as their employment rate increased by 0.8 percentage points, while the rate for men edged up by 0.2 percentage points. Both rates remain below their pre-recession highs, by about 1 point for women and 2.5 points for men.

Recovery stalls for youth

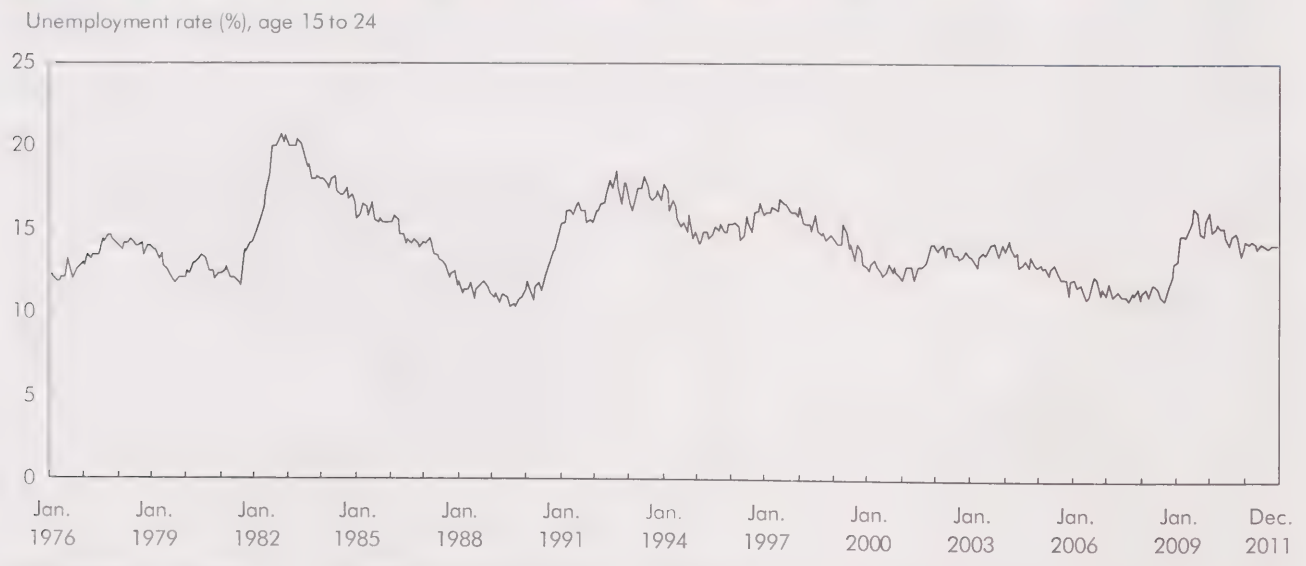
Youth have much more ground to make up to regain their pre-recession employment rate. Their employment rate fell by 0.3 percentage points over the year and remained more than 5 percentage points below their pre-recession high. As a result, the unemployment rate for youth from 15 to 24 increased from 14.0% in December 2010 to 14.4% in March 2011, before easing back to 14.1% in December 2011 (Chart C). With the slack labour market conditions for youth, the proportion of 15- to 24-year-olds attending school increased from 59.8% in the fall of 2008 to 61.8% in the fall of 2011.

The persistence of youth unemployment following the downturn is not unprecedented. Current levels of youth unemployment are similar to those 3 years after the onset of the 1980s recession, but remain well below persistently high levels of youth unemployment experienced through most of the 1990s.

Participation and employment rates down for recent immigrants

The employment rates of landed immigrants and the Canadian-born remained virtually unchanged in 2011, preserving a gap of 7 percentage points in favour of the Canadian-born (Table 2). The trend for immigrants differed according to the time they had spent in Canada: the employment rate was up for those who had landed more than 10 years ago and down for more recent arrivals—particularly for those who had been in Canada 5 years or less. However, the participation rate of these very recent immigrants fell further than their employment rate such that their unemployment rate fell by 1.7 percentage points.

Chart C Youth unemployment high, but lower than in most of 1990s



Source: Statistics Canada, Labour Force Survey, January 1976 to December 2011, seasonally adjusted data.

Table 2 Immigrants and the labour market

	December 2010	December 2011	Change	
	'000		'000	% change
Total employment	**17,132.9**	**17,330.1**	**197.2**	**1.2**
Landed immigrants	3,516.7	3,645.6	128.9	3.7
Immigrants, landed 5 years or less earlier	496.1	466.2	-29.9	-6.0
Immigrants, landed more than 5 to 10 years earlier	621.0	630.2	9.2	1.5
Immigrants, landed more than 10 years earlier	2,399.6	2,549.2	149.6	6.2
Born in Canada	13,360.3	13,377.6	17.3	0.1
Employment rate	%		% point change	
Total	61.7	61.7	0.0	...
Landed immigrants	56.5	56.4	-0.1	...
Immigrants, landed 5 years or less earlier	56.5	54.9	-1.6	...
Immigrants, landed more than 5 to 10 years earlier	66.2	65.2	-1.0	...
Immigrants, landed more than 10 years earlier	54.4	54.9	0.5	...
Born in Canada	63.3	63.3	0.0	...
Gap, Canadian-born versus immigrants	6.8	6.9	...	...
Unemployment rate				
Total	7.1	6.9	-0.2	...
Landed immigrants	8.8	8.5	-0.3	...
Immigrants, landed 5 years or less earlier	15.6	13.9	-1.7	...
Immigrants, landed more than 5 to 10 years earlier	9.5	9.8	0.3	...
Immigrants, landed more than 10 years earlier	7.0	7.1	0.1	...
Born in Canada	6.7	6.4	-0.3	...
Gap, Canadian-born versus immigrants	-2.1	-2.1	...	...

Source: Statistics Canada, Labour Force Survey, December 2010 and December 2011, data not seasonally adjusted.

Data source and definitions

The Labour Force Survey (LFS) is a monthly household survey that collects information on labour market activity from the civilian, non-institutionalized population 15 years of age and over. The survey uses a rotating sample of approximately 54,000 households, with each household remaining in the sample for six consecutive months.

The LFS divides the working-age population into three mutually exclusive classifications: employed, unemployed, and not in the labour force. For a full listing and description of LFS variables, see the *Guide to the Labour Force Survey* (Statistics Canada 2011).

The employment rate is employed persons as a percentage of the population 15 years of age and over. The rate for a particular group (for example, youth age 15 to 24) is the employed in that group as a percentage of the population for that group.

The unemployment rate is the unemployed as a percentage of the labour force. The unemployment rate for a particular group is the unemployed in that group as a percentage of the labour force for that group.

Fluctuations in economic time series are caused by seasonal, cyclical and irregular movements. A seasonally adjusted series is one from which seasonal movements have been eliminated. The monthly data for immigrants, Aboriginal peoples, employment by educational attainment and industry 3-digit level subgroups have not been seasonally adjusted. All other data presented in this article have been seasonally adjusted.

This analysis uses industry employment estimates categorized by the North American Industry Classification System (NAICS) at the 2-digit level. Some references are made to sub-groups at the 3-digit level that meet publication quality guidelines.

Data shown at the 2-digit level have been seasonally adjusted and are identified in the text by [a], and the 3-digit level, non-adjusted data by [b].

Table 3 Aboriginal peoples and the labour market

	December					Change 2010-2011	
	2007	2008	2009	2010	2011		
Employment, all ages			'000			'000	% change
Total, all ages	16,931.6	17,101.4	16,848.8	17,134.8	17,330.8	196.0	1.1
Non-Aboriginal	16,563.3	16,715.0	16,485.7	16,773.5	16,945.7	172.2	1.0
Aboriginal	368.3	386.4	363.0	361.3	385.1	23.8	6.6
First Nations living off-reserve	166.7	173.0	164.1	162.7	171.9	9.2	5.7
Métis	192.8	205.5	192.4	192.0	205.5	13.5	7.0
Employment rate			%			% point change 2010-2011	
Total, all ages	63.5	63.2	61.4	61.7	61.7	0.0	...
Non-Aboriginal	63.6	63.3	61.5	61.8	61.8	0.0	...
Aboriginal	58.1	60.0	55.5	54.4	57.1	2.7	...
First Nations living off-reserve	53.9	55.2	51.6	50.5	52.7	2.2	...
Métis	62.1	64.9	59.2	58.5	61.4	2.9	...
Total, age 15 to 24	58.0	57.6	53.1	53.1	53.5	0.4	...
Non-Aboriginal	58.4	57.8	53.5	53.4	53.7	0.3	...
Aboriginal	47.6	50.8	44.2	45.3	48.3	3.0	...
First Nations living off-reserve	42.2	42.4	38.4	38.3	43.3	5.0	...
Métis	54.3	59.8	51.2	52.4	53.5	1.1	...
Total, age 25 to 54	82.6	82.4	80.6	80.9	81.4	0.5	...
Non-Aboriginal	82.9	82.7	81.0	81.3	81.7	0.4	...
Aboriginal	70.3	71.4	67.3	65.1	70.1	5.0	...
First Nations living off-reserve	64.7	66.0	62.6	61.5	63.8	2.3	...
Métis	75.8	77.0	71.8	69.3	76.4	7.1	...
Total, 55 and over	32.5	32.8	33.2	34.4	34.2	-0.2	...
Non-Aboriginal	32.4	32.7	33.2	34.4	34.2	-0.2	...
Aboriginal	34.5	34.8	34.7	34.4	34.3	-0.1	...
First Nations living off-reserve	33.2	35.3	34.8	32.1	32.8	0.7	...
Métis	34.9	33.6	34.6	36.8	35.6	-1.2	...

Source: Statistics Canada, Labour Force Survey, December 2007 to December 2011, data not seasonally adjusted.

Aboriginal workers fare better in 2011 than in previous 2 years

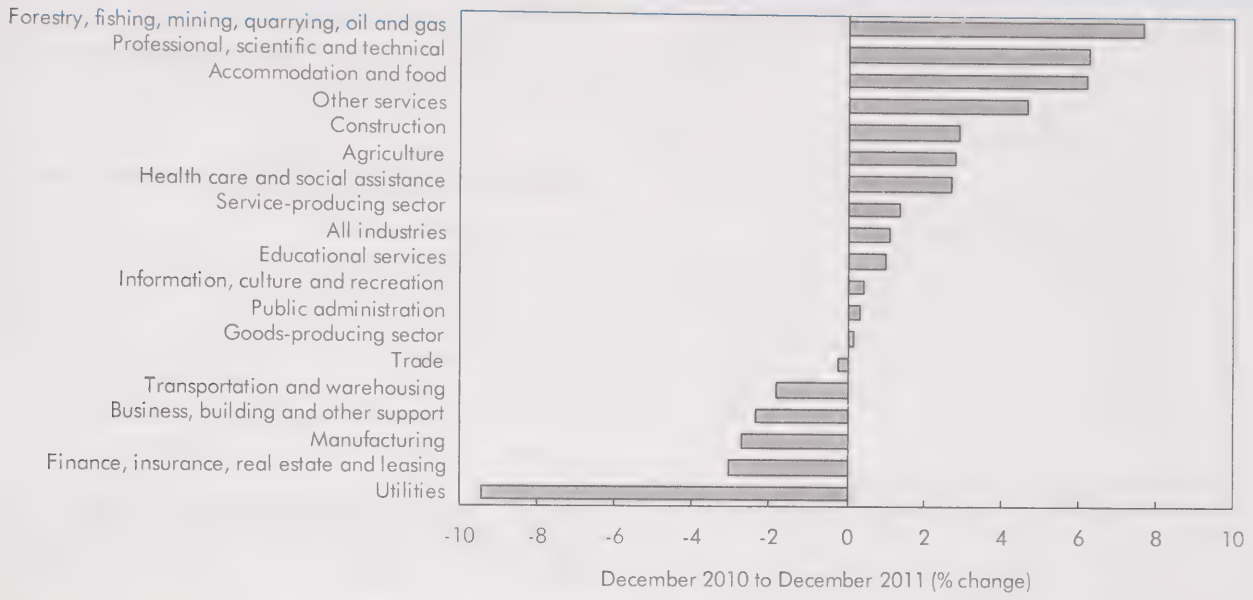
In 2011, the employment rate among Aboriginal peoples increased by 2.7 percentage points after declining 5.6 percentage points from 2008 to 2010 (Table 3). Employment rates increased for all age groups except for those 55 and over in 2011, with the largest absolute increase among prime-age Aboriginal peoples. Employment increased for both First Nations living off-reserve and Métis over the year.

Service sector outpaces goods sector

Employment growth varied widely across industries in 2011 (Chart D). Overall, job growth in the service sector (1.4%)[a] outpaced the goods sector (0.2%),[a] but there were pockets of strength and weakness in each sector.

Most pockets of growth in the goods sector were found in primary industries. Mining and oil and gas extraction added workers from December 2010 to December 2011, led by strong growth in oil and gas and support activities.

Chart D Employment growth differed greatly across industries



Source: Statistics Canada, Labour Force Survey, December 2010 to December 2011, seasonally adjusted data.

The manufacturing sector shed 49,000[a] jobs from December 2010 to December 2011, despite strong showings in some industries. Employment increased in machinery manufacturing and transportation equipment manufacturing.

Jobs in labour-intensive manufacturing industries continued to disappear in 2011. Textile mills and textile product mills, clothing manufacturing and leather and allied product manufacturing, and furniture and related product manufacturing all shed their workforces in the ensuing 12 months.

Chemicals, plastics and rubber products, and non-metallic mineral product manufacturers also had a difficult year. Employment in computer and electronic equipment manufacturing was also down.

Employment in construction grew by 2.9% (36,000)[a] in 2011. On the other hand, utilities employed 9.5%[a] fewer people in December 2011 than in December 2010.

In the service sector, there were pockets of strength in two sub-sectors that are generally associated with higher-paying jobs. Employment grew by 6.2%[a] in professional, scientific and technical services. The health care and social assistance sub-sector also added 56,000[a] jobs, with healthy gains in ambulatory health care services and nursing and residential care services offset by losses in social assistance.

Some sectors associated with lower-paying jobs also experienced significant growth in 2011. Employment in accommodations and food services advanced by 65,000[a] between December 2010 and December 2011, fuelled by gains in accommodation services. Similarly, private households added workers accounting for more than one-half of the net gain in "other services."

Results in other large service sub-sectors were mixed. Retail trade, with over 2.0 million employees, added 19,000 jobs (0.9%)[b] in 2011, the net result of widely varying trends within the industry. For example,

employment increased substantially in clothing and clothing accessories stores and in health and personal care stores, but they fell significantly in furniture and home furnishing stores and among non-store retailers. Overall gains in retail trade were offset by losses in wholesale trade, leaving this sector changed little over the year.

Jobs in educational services increased by 1.0%[a] as growth in university and "other schools and educational support" offset losses in primary, secondary and other postsecondary institutions.

Employment in public administration changed little in 2011 (0.3%)[a] as job gains at the local, municipal and regional levels counterbalanced losses at the federal and provincial levels. Similarly, information, culture and recreation sector jobs were up 0.4%[a] December to December.

Jobs in the finance, insurance and real estate sector fell by 3.1%[a] from December 2010 to December 2011, fuelled by losses in the banking sub-sector and in rental and leasing services. The transportation and warehousing sector also shed a significant number of jobs in 2011, with the losses spread across a number of industries. However, this sector also had some pockets of employment growth, mainly in truck transportation and warehousing and storage.

Employment declines among some white-collar occupations

Employment increased in most occupations, but lost ground among occupations in social science, education, government service and religion; business, finance and administrative occupations; and managers. In combination, these three occupational groups shed 69,000 jobs between December 2010 and December 2011.

Strong growth in health occupations

Mirroring industry trends, employment in health occupations advanced by 69,000 (6.2%), with growth more concentrated in technical and assisting occupations than in health professions. In relative terms, growth was even stronger in occupations in art, culture, recreation and sport, where employment was up 9.2% (50,000) December to December. Natural and applied sciences and related occupations (1.3%) and sales and service occupations (0.6%) experienced moderate job growth.

Increasing ranks of blue-collar workers

Blue-collar occupations were a source of strength, accounting for more than one-half of net job creation in 2011. In absolute terms, trades, transport and equipment operators and related occupations added the most jobs (68,000), while occupations unique to processing, manufacturing and utilities grew at a pace of 3.5%. Employment increased only moderately in occupations unique to primary industries.

Surge in employment for high school grads, but unemployment rate remains high in this group

The increase in blue-collar jobs lines up with a surge in employment for people with only a high school diploma (Table 4). High school graduates held 229,000 more jobs in December 2011 than in December 2010.

Table 4 Education and the labour market

	Total	Less than high school	High school graduate	Some post-secondary	Post-secondary certificate or diploma	University degree
			'000			
Employment						
December 2010	17,087.2	1,762.9	3,298.2	1,391.3	6,188.2	4,446.7
December 2011	17,271.7	1,767.9	3,527.3	1,269.6	6,186.0	4,521.0
Change	184.5	5.0	229.1	-121.7	-2.2	74.3
			%			
Employment rate						
December 2010	61.4	32.5	61.2	58.7	71.3	74.8
December 2011	61.4	32.9	61.4	57.7	70.5	74.9
Change	0.0	0.4	0.2	-1.0	-0.8	0.1
Unemployment rate						
December 2010	7.0	14.5	7.8	7.9	5.8	4.6
December 2011	6.9	14.3	7.3	8.4	5.9	4.2
Change	-0.1	-0.2	-0.5	0.5	0.1	-0.4

Source: Statistics Canada, Labour Force Survey, December 2010 and December 2011, data not seasonally adjusted.

Employment also increased by 74,000 among university graduates, but declined significantly among those with incomplete postsecondary education. Despite the job gains among high school graduates, their employment rate still trails that of university graduates by 13.5 percentage points and their unemployment rate is 3.1 percentage points higher.

Reference

Statistics Canada. 2011. *Guide to the Labour Force Survey.* Statistics Canada Catalogue no. 71-543-G. March. Ottawa. http://www.statcan.gc.ca/pub/71-543-g/71-543-g2011001-eng.htm (accessed February 15, 2012).

Perspectives

Job-related training of older workers

Jungwee Park

Over their careers, workers may upgrade their skills and knowledge through training to increase promotional opportunities, improve job security or earn higher wages (Kapsalis 1998; Cully et al. 2000). Employers provide training to increase the productivity or performance of workers, achieve organizational goals and invest in workers to succeed in an unpredictable business environment (Belcourt et al. 2000). Given the recent trend towards delayed retirement (Carrière and Galarneau 2011), job-related training may be increasingly important to older workers wishing to continue working, as well as to employers with aging workforces.

In addition to the lengthening of careers, there are several other reasons why training may become more prevalent among older workers. Some studies have cited the training and retention of older workers as responses to possible skill shortages in some industries (Zeytinoglu et al. 2007). Others note that older workers' potentially shorter time in the workforce does not necessarily translate into shorter tenure with a given employer since retention rates are higher among older employees (Robson 2001). In Canada, the lowest job turnover rates have been found among older workers (Picot et al. 2001). Moreover, tenure at new jobs increased more among workers age 55 to 64 than for any other 10-year age group from the late 1980s to the late 1990s.[1] Thus, older employees and their employers may have more time to benefit from or recoup the costs of training than in the past.

Nevertheless, most research finds that the incidence of training declines with age (OECD 2006; Cully et al. 2000). This may be related to perceived barriers to training among older workers. Compared with core-age (25 to 54) workers, a significantly higher proportion of older workers perceived dispositional barriers that were dissuading them from taking job-related courses or programs. That is, many may not have participated in job training due to lack of confidence, interest or motivation, even if they had wanted or needed to take the training (see *Barriers to training opportunities*).

Although age is included as a dimension of the analysis in many Canadian studies, older workers are rarely the focus of the analysis (Hurst 2008; Zeytinoglu et al. 2007; Underhill 2006; Knighton et al. 2009). When age is used as a characteristic in a model of the incidence or intensity of training, the assumption is that the effects of other characteristics are the same for older and younger workers. Thus an analysis focusing on older workers may yield new insights.

The Access and Support to Education and Training Survey (ASETS), most recently conducted in 2008, provides detailed information on adult education including job-related and employer-supported training (see *Data source and definitions*). This article focuses on the employed adult population who had worked at a job or business at any time between July 2007 and June 2008. Employees age 55 to 64 are the main target group of this analysis. To examine job-related training among older workers in previous years, the 1992 to 2003 cycles of the Adult Education and Training Survey (AETS) are used.

This study attempts to answer the following research questions:

1. Are there differences in the participation rate in job-related training activities between older (55 to 64) and core-age (25 to 54) employees?
2. Are certain older workers more likely to participate in employer-supported job training than others?
3. How has the participation of older workers in employer-supported training changed over time?

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Barriers to training opportunities

The 2008 ASETS asked respondents whether there was any training that they had wanted to take but did not take, and whether there was any training they had needed to take but did not take. Having either the need or the desire to take training can be considered a proxy for being willing or ready to engage in a training activity (Knighton et al. 2009). In this section, older workers in the preceding two groups are combined to examine perceived barriers to job training. The reasons for not participating in training are also discussed.

Three main types of barriers to participation in job-related training have been identified: situational, institutional and dispositional (Sussman 2002). Situational barriers arise from one's situation in life at a given time—too busy at work, financial constraints, family responsibilities or lack of child care, and language or health problems. Institutional barriers consist of established practices and procedures that exclude or discourage participation, such as high tuition fees, entrance requirements, limited course offerings and courses offered at inconvenient times or locations. Dispositional barriers involve attitudes and opinions towards learning, as well as perceptions of oneself as a learner (Cross 1981).

Compared with the younger working population, older employees were less likely to perceive the presence of barriers to training access. About 19% of female and 13% of male employees age 55 to 64 perceived barriers to job training (Table 1). These rates were lower than those of core-age groups: 33% for women and 29% for men.

Among older workers who did not receive any job training despite their need or desire, situational-type barriers were the most frequently reported reasons for not taking a course or program. Scheduling issues were reported by 1 in 5 and work that was too demanding was reported by almost 1 in 4. However, the proportions of situational and institutional barriers reported by older workers were significantly lower than those reported by younger employees.

On the other hand, dispositional barriers were more prevalent among older workers than core-age workers. Among older men and women, 35% and 27%, respectively, perceived dispositional barriers compared with 22% and 20% among core-age men and women, respectively. In particular, lack of confidence, interest, or motivation were reported to be important barriers to older workers' job training.

Finally, a relatively high proportion of older workers (33% for men and 29% for women) selected "other" as the reason for barriers. There were thus other barriers perceived by many older employees that were not included in the survey response categories.

Table 1 Training barriers perceived by older employees

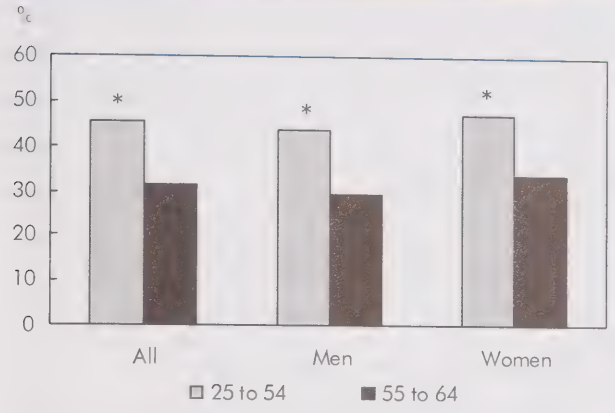
	Age 55 to 64		Age 25 to 54	
	Men	Women	Men	Women
		%		
Barriers perceived	**13***	**19***	**29**	**33**
Types of barriers				
Situational barriers	41*	49*	66	74
Conflict with work schedule	19*	20*	33	31
Family responsibilities	10*	15*	24	38
Need to work	24*	24*	33	31
Too expensive	7E*	13*	20	29
Couldn't get a loan	F	F	2	3
Health reasons	2E	5E	1E	4
Institutional barriers	15*	19*	26	28
Couldn't find the information	3E	3E*	4	4
Lack prerequisites	2E	2E	4E	4
No employer support	6E*	5E*	9	9
Inconvenient time	9E	12*	12	16
Inconvenient place	5E	7E*	7	11
Dispositional barriers	35*	27*	22	20
Not sure it is worth it	13	8	10	8
No confidence/interest/motivation	24*	21*	15	14
Other	33*	29*	20	15

* significantly different from age 25 to 54 at the 5% level
Note: Multiple answers were allowed.
Source: Statistics Canada, Access and Support to Education and Training Survey, 2008.

Older workers had lower participation in job-related training

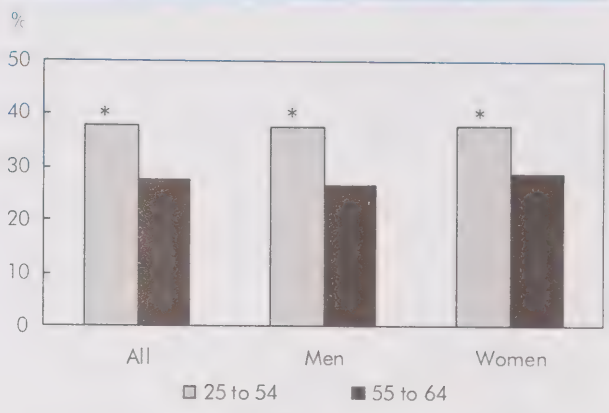
Job-related training activities can be divided into "courses" and "programs" related to a current or future job. Courses encompass structured learning activities which include workshops, private lessons, and other guided on-the-job training, but do not lead to a formal education credential. Job-related programs, on the other hand, involve education leading to formal credentials (Knighton et al. 2009). In this analysis, job-related training includes both types of activities—courses and programs (see *Data source and definitions*).[2]

Chart A Older workers had lower participation in job training activities than core-age workers



* significantly different from those age 55 to 64 at the 5% level
Source: Statistics Canada, Access and Support to Education and Training Survey, 2008.

Chart B Older workers had lower participation in employer-supported training than core-age workers



* significantly different from those age 55 to 64 at the 5% level
Source: Statistics Canada, Access and Support to Education and Training Survey, 2008.

Overall, younger employees reported receiving more job-related training than older employees (Chart A). Between July 2007 and June 2008, 45% of workers age 25 to 54 took at least one job-related course or program compared to 32% of those age 55 to 64.

Similar trends were observed for employer-supported training:[3] 38% of core-age workers received employer-supported training compared to 28% of older workers (Chart B). These age-based differentials were consistent among both men and women.[4]

Using standard models that control for sociodemographic and labour market factors,[5] the differences in participation in job-training activities and employer-supported training between older and younger employees remained significant. For example, older male workers were one-half as likely to receive employer-supported training as their core-age counterparts (Table 2).

Older participants took similar number of courses and programs

The intensity of job training is measured by the number of hours spent in training and the number of courses/programs taken. Among those who participated in job-training activities, there was a significant difference between older and younger participants in the hours spent on courses but not on the hours spent in training programs. On average, older male course participants

Table 2 Adjusted odds ratios for participating in job-related training

	Job-training activities			Employer-supported training		
	All	Men	Women	All	Men	Women
	odds ratio					
Age						
25 to 54 (ref.)	1.00	1.00	1.00	1.00	1.00	1.00
55 to 59	0.60*	0.50*	0.71*	0.66*	0.55*	0.77*
60 to 64	0.52*	0.53*	0.48*	0.58*	0.54*	0.63*

* significantly different from the reference group (ref.) at the 5% level
Source: Statistics Canada, Access and Support to Education and Training Survey, 2008

Data source and definitions

The main data source for this article is the Access and Support to Education and Training Survey (ASETS). ASETS is a new survey of 72,000 households and is a combination of three previously conducted surveys: the Survey of Approaches to Educational Planning, the Post-Secondary Education Participation Survey, and the Adult Education and Training Survey (Statistics Canada 2008). Data collection took place between June and October 2008. Most survey questions refer to activities undertaken between July 2007 and June 2008. Information collected in this survey includes the incidence and intensity of adults' participation in job-related training, a profile of employer support, and barriers preventing individuals from participating in training they want or need to take. The survey also contains information on labour market and other personal characteristics.

This study includes individuals age 25 to 64 for analysis, with a sample size of 16,900, representing a population of 18.3 million (the sample size of employees is 11,300). The sample size of individuals age 55 to 64 is 4,900 (2,300 employees), representing a population of 3.9 million.

Sample sizes for earlier cycles of AETS are as follows:

- AETS 1992 32,200 (age 55 to 64, N=5,200)
- AETS 1994 29,500 (4,900)
- AETS 1998 23,700 (3,800)
- AETS 2003 24,200 (4,900).

Given the complex nature of the survey design, bootstrap estimation was used to derive the variances for odds ratios and percentages.

Job-related training activities are activities pursued for the development or upgrading of skills for use in present or future employment rather than personal interest or other non-employment-related reasons. Training activities can be courses and workshops not leading to a formal education credential, or activities (programs) provided in formal systems of education leading to a formal education credential, including primary-level and secondary-level education, and postsecondary education like university and college diplomas and degrees.

Employer-supported job training is a job-related training activity supported by the employer. Employer support consists of one or more of the following: providing the training, paying for the training (either directly or by reimbursing the employee), allowing a flexible work schedule to accommodate training, and providing transportation to and from the training location. ASETS collected information on employer support for one randomly selected training activity rather than all training activities. AETS cycles were based on all training activities that were taken. In 2003 and 2008, questions on employer support were asked only to respondents who had participated in education or training relating to a current or future job (job-related training); earlier cycles asked a range of questions about participation in any education or training activity, regardless of whether it was job-related.

Employee is based on the concept of class of worker. Among individuals who worked at a job or business at any time during the year prior to the survey, those who worked as employees at public-sector or private-sector workplaces were considered employees. The self-employed and those working in a family business without pay were excluded from the analysis.

Occupation was coded into three groups:

- white collar (occupations in management; business, finance and administrative; natural and applied sciences; health; social science, education, government service and religion; art, culture, recreation and sport)
- sales and service
- blue collar (trades, transport and equipment operators; primary industry; processing, manufacturing and utilities).

Industry was divided into two categories:

- goods-producing industries comprising agriculture, forestry, fishing, mining, oil and gas; utilities; construction; manufacturing
- service industries comprising trade; transportation and warehousing; finance and insurance; real estate, rental and leasing; professional, scientific and technical services; education; health care and social assistance; arts, entertainment and recreation; accommodation and food services; public administration.

spent 34 hours on courses compared to 58 hours for younger males (Table 3). However, the average number of courses and programs taken by the two age groups was almost identical.

Overall, older employees tend to take courses of shorter duration than their younger counterparts. Other measures of intensity were similar for the two groups, despite clear differences in the incidence of training.

Personal income and education are factors linked to training participation

Multivariate logistic regression models were estimated to examine how sociodemographic and labour market factors are associated with employer-supported training of older workers. The first set of models included sociodemographic variables and job characteristics. These models tested the effects of terms

Table 3 Intensitiy of job-training activities among participants

	Men		Women	
	25 to 54	55 to 64	25 to 54	55 to 64
Courses[1]				
Average hours	58.0*	33.9	42.6*	31.8
Average number	2.6	2.6	2.7	2.8
Programs[2]				
Average hours	499.0	430.1	397.1	266.3
Average number	1.1	1.2	1.2	1.3

* significantly different from those age 55 to 64 at the 5% level
1. Refers to courses and workshops not leading to a formal education credentials.
2. Refers to activities in formal systems of education leading to formal credentials.
Source: Statistics Canada, Access and Support to Education and Training Survey, 2008.

of employment, occupation, working hours, unionization, and job tenure while controlling for sociodemographic factors.

In the second set of models, workplace characteristics—a public-sector versus private-sector indicator, firm size and industry—were substituted for job characteristics.

A third set of models included job characteristics, workplace characteristics and sociodemographic factors.[6] Since these analyses were based on cross-sectional data, neither causality nor the ordering of events can be inferred.

Among older workers, income and education were significant correlates of training. Compared with men and women with personal annual income of $100,000 or more, those with less than $50,000 per year were significantly less likely to receive employer-supported training (Table 4). That is, those in high-paying jobs tend to have more job-training opportunities, which could be due to greater skill demands in their work.

When controls were in place for demographic, job and workplace characteristics, older female employees with postsecondary education were significantly more likely to receive employer-supported training than those with lower levels of education. Similar correlations were found for older male employees in the first two models, but the regression findings were no longer statistically significant when workplace and job characteristics were simultaneously included, indicating some intervening relationship between education and workplace characteristics for men.

From a geographic perspective, workers in Quebec—both older and core-age—had lower training rates than workers in Ontario, which was used as the benchmark for other provinces (data not shown).[7]

Higher training among older workers in white-collar jobs

Compared with white-collar workers, non-white-collar workers (sales or service and blue-collar, see *Data source and definitions*) received less training. Older male blue-collar workers were less likely than their white-collar counterparts to receive employer-supported job training (odds ratio of 0.5), however this difference was not statistically significant when workplace factors were taken into consideration. Women with sales or service jobs were less likely than their white-collar counterparts to participate in employer-supported training.

Women with temporary jobs were less likely to participate in employer-supported training compared to women with permanent jobs. This finding suggests that older women's job security has an association with opportunities for employer-supported job training.

Training rates higher in service-industry jobs

Workers employed in goods-producing industries were less likely to participate in employer-supported training activities. With all controls in place in Model 3 (Table 4), older male and female employees in goods-producing industries were less likely to undertake job training than those working in service industries. This is likely related to the fact that there are some very high-training industries in the service sector, such as professional and scientific services, information, education and health care (Park 2011).

Several other job and workplace characteristics were significantly related to job training for older women. Women with private-sector jobs were less likely to participate in employer-supported training compared to those in the public sector. As Barrett et al. suggested (2009), training offered by private-sector workplaces tends to focus on employer-specific training, linked closely to the current job, whereas public-sector employers may sponsor more general training that is of use in both current and future employment.

Table 4 Adjusted odds ratios for participating in employer-supported job training for older employees

	Job characteristics model			Workplace model			Total model		
	All	Men	Women	All	Men	Women	All	Men	Women
					odds ratio				
Sociodemographic characteristics[1]									
Age									
55 to 59 (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
60 to 64	0.85	0.86	0.77	0.91	0.96	0.81	0.92	0.95	0.80
Personal income									
Less than $25,000	0.24*	0.08*	0.31*	0.19*	0.07*	0.28*	0.27*	0.09*	0.40
$25,000 to $49,999	0.35*	0.41*	0.26*	0.29*	0.29*	0.32*	0.35*	0.35*	0.33*
$50,000 to $74,999	0.64	0.57	0.66	0.63	0.47*	0.86	0.67	0.56	0.77
$75,000 to $99,999	1.16	1.16	0.99	1.12	1.09	1.25	1.10	1.07	0.98
$100,000 or more (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Education level									
Less than high school graduation	0.30*	0.37*	0.20*	0.30*	0.40*	0.21*	0.33*	0.42	0.21*
High school diploma or its equivalent	0.70*	0.88	0.56*	0.75	0.99	0.61*	0.75	0.93	0.61*
Postsecondary degree, diploma or certificate (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Job characteristics[2]									
Terms of employment									
Permanent (ref.)	1.00	1.00	1.00	...	...	...	1.00	1.00	1.00
Non permanent	0.72*	1.13	0.44*	...	...	...	0.62	0.95	0.37*
Occupation									
White-collar jobs (ref.)	1.00	1.00	1.00	...	...	...	1.00	1.00	1.00
Blue-collar jobs	0.50*	0.52*	0.56	...	...	...	0.82	0.78	0.97
Sales and services	0.54*	0.74	0.43*	...	...	...	0.55*	0.79	0.41*
Workplace characteristics									
Job sector									
Public sector (ref.)	...	...	...	1.00	1.00	1.00	1.00	1.00	1.00
Private sector	...	...	...	0.64*	0.66	0.61*	0.59*	0.63	0.54*
Firm size									
Less than 20 employees	...	...	...	0.68	1.02	0.50*	0.65	0.94	0.51*
20 to 99 employees	...	...	...	1.08	1.25	0.89	1.06	1.12	0.89
100 to 500 employees	...	...	...	0.90	0.94	0.90	0.90	0.91	0.92
More than 500 employees (ref.)	...	...	...	1.00	1.00	1.00	1.00	1.00	1.00
Industry									
Goods-producing	...	...	...	0.50*	0.54*	0.36*	0.50*	0.57	0.29*
Service-producing (ref.)	...	...	...	1.00	1.00	1.00	1.00	1.00	1.00

* significantly different from the reference group (ref.) at the 5% level
1. Other variables controlled for are marital status, visible minority status and geographic region.
2. Other variables controlled for are working hours, unionization and job tenure.
Source: Statistics Canada, Access and Support to Education and Training Survey, 2008.

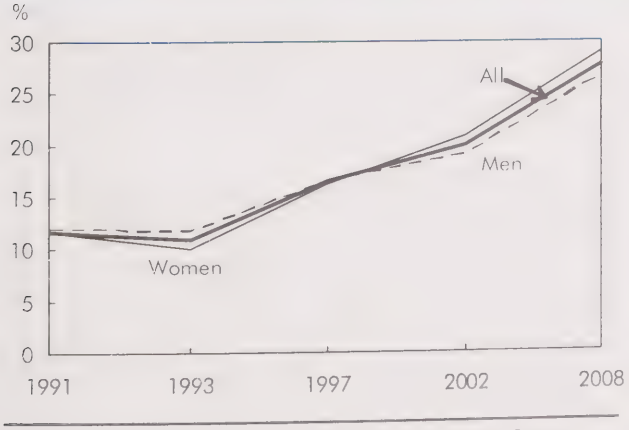
With regard to employer size, older women working at small firms (less than 20 employees) were less than one-half as likely to participate in employer-supported training as those working at firms with more than 500 employees. Larger firms tend to have a greater incentive to train employees because they can pool training risks (Holtmann and Idson 1991), whereas smaller companies may have difficulty sparing resources for training (Leckie et al. 2001).

Increased participation in employer-supported training over time

Based on previous cycles of the Adult Education and Training Survey, there has been a steady increase in the incidence of employer-supported training among older workers since 1993.[8] In 2008, almost 30% of older employees received employer-supported training compared with roughly 10% of employees in both 1991 and 1993[9] (Chart C). The steady rise in participation in job-related training was noted for both older men and women.

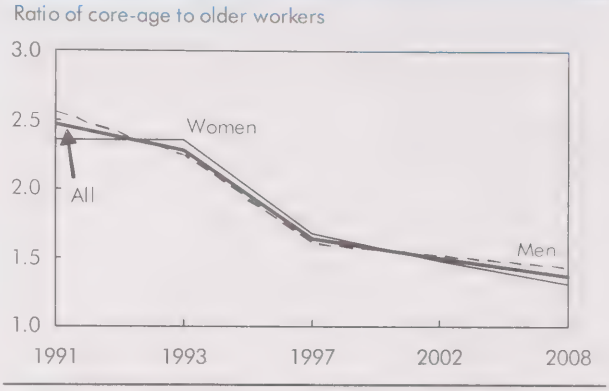
Not only have the training participation rates of older workers increased over time, but the gap in participation rates between older and younger workers has also narrowed. The training rate for core-age workers also increased, but not to the same extent as the rate for older workers. For example, between 1991 and 2008, the participation rate for core-age workers increased from 29% to 38% while for older workers it went from 12% to 28%. In other words, while in 1991 core-age workers were about 2.5 times more likely to train than older workers, by 2008 the ratio had decreased to 1.4 (Chart D).

Chart C Employer-supported training of older workers has increased since 1993



Sources: Statistics Canada, Adult Education and Training Survey, 1992, 1994, 1998 and 2003; Access and Support to Education and Training Survey, 2008.

Chart D Gap between older and with core-age group in employer-supported training has decreased



Sources: Statistics Canada, Adult Education and Training Survey, 1992, 1994, 1998 and 2003; Access and Support to Education and Training Survey, 2008.

Level of education is the biggest contributor to increases in training over time

The marked growth in job-related training for older workers could be related to changes in their sociodemographic profile, like increasing levels of educational attainment. For example, while 30% of older workers held a postsecondary diploma or certificate in 1991, 56% held one in 2008.[10]

A Blinder-Oaxaca decomposition technique is used to estimate the extent to which the across-time difference is attributable to selected socioeconomic characteristics (Table 5). There was a 16-percentage-point difference in older workers' participation in employer-supported training between 1991 and 2008. Differences in the socio-economic characteristics of older workers in the two years accounted for about 10 percentage points—or 61%—of this overall difference. Educational attainment played the largest role,

Table 5 Blinder-Oaxaca decomposition on older workers' participation in employer-supported training, 1991 and 2008

	Decomposition
	% points
Raw difference	**16.00**
Explained portion - Total	9.80
Female	-0.04
Marital status	0.06
Education	5.03
Work hours (part-time/full-time)	-0.19
Employment sector (private/public)	1.58
Industry	1.53
Occupation	1.84

Sources: Statistics Canada, Adult Education and Training Survey, 1992; Access and Support to Education and Training Survey, 2008.

accounting for about 5 percentage points while occupation, industry, and the public/private sector accounted for 1.8, 1.5, and 1.6 percentage points, respectively. In other words, more than one-half of the increase in participation in employer-supported training in 2008 was related to the changing characteristics of older workers and their workplaces—particularly higher levels of education and a greater proportion of jobs in the public sector, service industries and white-collar occupations.

On the other hand, more than one-third (39%) of the increase in the training participation rate of older workers cannot be explained by changes in socio-economic conditions. Thus there has also been an increase in training participation among older workers regardless of personal, job or workplace characteristics.

Conclusion

Given recent economic trends, job-related training is increasingly important to older workers who wish to continue working. As older workers are delaying their retirement (Carrière and Galarneau 2011), their training rate is increasing—helping maintain their employability and productivity.

For employers, the retention of older workers is one response to workforce aging, particularly where skill shortages may come into play. Data indicate that the tenure of newly hired older workers is also increasing, so that employers have a longer time to recoup training expenses through productivity gains.

This study found that older workers were still significantly less likely to participate in job-related training than their of core-age counterparts, even after controls were in place for labour market and sociodemographic factors.

Among older workers, significantly lower participation in training was found for those with lower annual income, low educational attainment, temporary employment, blue-collar or service jobs, and those working in the private sector, particularly goods-producing industries.

However, the training gap between older and younger workers shrank over time as the training participation rates of older workers more than doubled from 1991 to 2008. The ratio of core-age worker to older-worker training rates stood at 1.4 in 2008, compared to 2.5 in 1991. Although almost two-thirds of the increase in the training participation rate of older works can be attributed to changes in educational attainment and workplace characteristics, there is also clear evidence of a general upward trend in the training rates of older workers.

Perspectives

Notes

1. Based on Labour Force Survey data, between 1987 and 1989 and 1997 and 1999, the growth rate in average job tenure (months) for workers age 55 to 64 was 49% compared with 35%, 27% and 38% for those age 25 to 34, 35 to 44 and 45 to 54, respectively (Picot et al. 2001). As well, this analysis found that 30% of those age 55 to 64 reported job tenure longer than 20 years (52% reported longer than 10 years), while 23% of workers age 45 to 54 reported job tenure longer than 20 years (45% reported longer than 10 years).
2. While some studies using the 2008 ASETS focused on courses (Knighton et al. 2009; Park 2011), training in this analysis combines the two to ensure better comparability with previous studies that combined courses and programs, such as Sussman (2002), Peters (2004) and Underhill (2006).
3. Most training (83%) was at least partially supported by the employer (Park 2011).

4. There were no statistically significant differences in training participation between workers age 55 to 59 and workers age 60 to 64.
5. Control variables included education level, personal income, visible minority status, marital status, geographic region, disability, job tenure, full-time status, permanent job status, unionization, occupation, firm size, job sector (public/private), and industry.
6. Alternating job and workplace characteristics across the models helps to determine whether collinearity between the two is an issue.
7. In addition to the model for employer-supported training among older workers, a separate regression analysis was conducted for overall job-training activities. Similar findings were found. Detailed results for overall job training can be obtained from the author.
8. Employer-supported training provides more comparable data over the cycles than overall job-training activities. Earlier cycles measured employer-related courses/programs and non-employer-related ones differently.
9. Note that there are differences between survey years and reference years. For example, the 2003 AETS asked respondents if they had participated in education or training in 2002.
10. During the same period, the proportion of core-age workers with a postsecondary diploma or certificate increased from 46% to 69%.

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Youth neither enrolled nor employed

Katherine Marshall

Economic downturns tend to have a greater impact on youth compared to core-age workers. Youth unemployment tends to be higher and job stability and quality tend to decline—factors that can hinder a timely transition from school to work (Quintini and Martin 2006). Downturns can thus impede youths' entry into well-matched career jobs and may have long-term effects on their well-being (Bell and Blanchflower 2010).

A suite of well-established indicators are used to assess the labour market performance of youth, including the employment rate, unemployment rate and long-term unemployment rate. During the late 1990s, a number of European countries and the Organisation for Economic Co-operation and Development (OECD) began publishing another indicator, the NEET rate—the proportion of all youth who are Not in Education, Employment, or Training. The term was coined in Britain after reports that an increasing number of older teenagers were leaving school and remaining jobless for long periods (Social Exclusion Unit 1999).

Concern was raised that NEET youth would become discouraged, disengaged and socially excluded. A British study showed that certain 'at-risk' youth were more likely to enter a NEET state and were subsequently more likely to have a poor labour market experience, depression, early parenthood and poor housing (Bynner and Parsons 2002). In reaction to this trend, programs and policies were developed in Britain to reduce the number of youths in a NEET state (Yates and Payne 2006). The phenomenon was not limited to Britain, as one study found that more than 10% of youth from age 15 to 24 in Italy, Greece, France and Spain were in a continual state of NEET for 5 years (Quintini and Martin 2006).

The term NEET has become a standard concept in Europe. However, some research has shown that while youth unemployment and NEET rates track closely in many countries, there are mixed or opposite correlations in others (Quintini and Martin 2006; Martin 2009). It is also argued that the term NEET has a distinctly negative connotation and that "it is important to note that even when youth NEET rates are very high, this may be generated by choices (e.g., travel, leisure), or by non-economic constraints (e.g., military conscription)" (Quintini and Martin, p. 11). Indeed travel, or unpaid work like parental leave or volunteering, should not be construed as detrimental behaviour. However, the exact activities of NEET youth not in the labour force are usually not known. Despite some conceptual difficulties with NEET, the argument has been made that publishing the indicator helps raise awareness of the potential vulnerability of some youth (Furlong 2006).

The OECD presents NEET and sub-NEET category rates (by unemployed and not in the labour force) for most member countries, including Canada. However, relatively little research has examined NEET youth in Canada. Is this relatively new indicator relevant to the situation of Canadian youth? Using the same OECD definition and data source—the Labour Force Survey—this study presents trends in NEET rates for Canada and other OECD countries (see *Data sources and definitions*). This is followed by a detailed examination of the characteristics of Canadian NEET youth, either unemployed or not in the labour force (NILF), with a focus on determining the activities of the latter group.

Note that the OECD calculates its NEET rates based on 'youth' age 15 to 29. In Canadian statistics, youth generally refers to the 15- to 24-year-old age group.

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Data sources and definitions

The **Labour Force Survey (LFS)** is a monthly household survey that collects information on labour market activity from all persons 15 years of age and over. Respondents are also asked whether they are currently attending school and which type of school. The LFS employment and education information is used to create an indicator of youth who are neither in education nor employment (NEET), based on the Organisation for Economic Co-operation and Development (OECD) definition and methodology (see below).

The **General Social Survey (GSS)** is an annual household survey that collects information on a wide range of social trends and policy issues. Questions are asked of one household member age 15 or over and data collection takes place over the entire year. Each survey cycle asks about the main activity of the respondent during the past week. In order to gauge the regular activity of youth, all summer months are excluded from the calculations (May through August). All files include a set of bootstrap weights to help adjust for the survey design.

The **target population** is all individuals age 15 to 29, excluding those in the military. If the members of the military were to be included in the study they would be considered employed youth. Note that the OECD definition of youth is different from the standard for those age 15 to 24 generally used in the Canadian LFS.

The **OECD NEET indicator** is created from OECD and Eurostat databases, which are compiled from national labour force surveys. The data refer to the first three months of the calendar year (January, February, March), which is meant to exclude summer employment. Youth are divided into three main groups: those attending school in a regular educational system (whether part time or full time and whether they have a job while attending school); the employed (part time or full time and not attending school);, and those neither attending school nor employed (NEET). NEET youth are further categorized as unemployed (by duration of unemployment) or not in the labour force (NILF). Based on the OECD methodology, students attending "other" schools in Canada are not considered students in the indicator (OECD 2011).

Students are all individuals attending primary or secondary school, community college, junior college or CEGEP, or university during the LFS reference week. For the purpose of this study, those attending **other schools** are not considered students. Examples of the other school category include personal interest courses that do not count towards a degree, certificate or diploma and credit courses that are employer-sponsored and employer-operated. In this study, 1% of all youth were attending some form of other school based on the OECD NEET definition, while roughly one-half were coded as employed youth and the remainder as NEET youth not in the labour force.

Employed youth are non-students who reported doing any work at a job or business or being temporarily away from their jobs during the interview period (the LFS reference week). For this study, employed students were classified in the student population.

Unemployed youth are non-students who, during the reference week, were without employment but were actively looking for work and were available to work, or were not actively looking for work but had been laid-off and expected to return to work, or had a new job to start within four weeks. The **NEET unemployment rate** refers to unemployed youth as a percentage of all youth, while the **LFS unemployment rate** refers to unemployed youth as a percentage of youth in the labour force (the employed plus the unemployed).

Youth **Not in the Labour Force (NILF)** refers to those who are neither employed nor unemployed and therefore not in the labour market. Normally students fall into the NILF category; however, for the purpose of analyzing NEET youth, students are not included in the standard NILF population and comprise their own "student" category. The NEET–NILF group can be further classified into those who reported wanting a job, despite not looking, and those who did not report wanting a job. A derived variable from the LFS lists the reasons why NILF youth wanted a job but did not search for one.

Youth are defined as **living with parents** when they are listed as the son or daughter of the reference person of the household. The reference person must be one of the adult household members who have responsibility for the care or support of the family. It is assumed that youth living at home are in households where one of the parents has been identified as the reference person. Youth who identify themselves as the reference person, spouse of the reference person, or other relative are classified as **not living with parents**.

In this study, 23% of youth were **married** (including common-law) and 77% were **single** (including 1% of youth who were widowed, separated or divorced).

When youth are recorded as the reference person or spouse of the reference person it is possible to determine whether they have their own **children at home**. The vast majority of married youth are coded as the reference person or spouse of the reference person (94%). Single-parent youth not living with their parents can also be identified but are not a focus of this study. It is not possible to determine whether youth living at home have their own children, however, 99% of youth living with their parents are single.

Logistic regression models were used to examine the probability of being unemployed in the labour force and the probability of not being in the labour force within the non-student population. Multicollinearity diagnostic tests were run for all models. Since it is not possible to use the LFS variance estimation program to take the complex survey design into account for regression models, a more conservative level of statistical significance (<0.001) was set to ensure reliable results. Coefficients of variation were produced for all other LFS estimates using the jackknife estimation program with significance levels set at <0.01.

This article follows the OECD convention, to maintain overall consistency with the NEET concept.

Canada has relatively low long-term youth unemployment

Among the G7 countries with the most recent and comparable OECD data,[1] Canada had the second lowest NEET rate (13.3%) among youth age 15 to 29 in 2009 (Table 1).

Germany had the lowest percentage of youth who were neither in education nor employed (11.6%) and Italy the highest (21.2%). Looking at NEET subcategories, 5.7% of Canadian youth were unemployed and 7.6% were not in the labour force (NILF). Similar to the other selected G7 countries, the overall NEET rate was lowest among teenagers and highest among the 25- to 29-year age group. In addition to the NEET rates, other related indicators include the duration of unemployment for NEET youth looking for work, and the reasons for not being in the labour force for the remaining NEET youth.

The OECD series further divides unemployed youth into those who have been searching for a job for less or more than six months. Although there is no standard definition of long-term unemployment, demarcations of longer than 6 or 12 months are often used (Dubé and Dion 2005). Prolonged periods of unemployment can lead to financial hardship and lower levels of psychological well-being (Dubé 2004; Machin and Manning 1998).

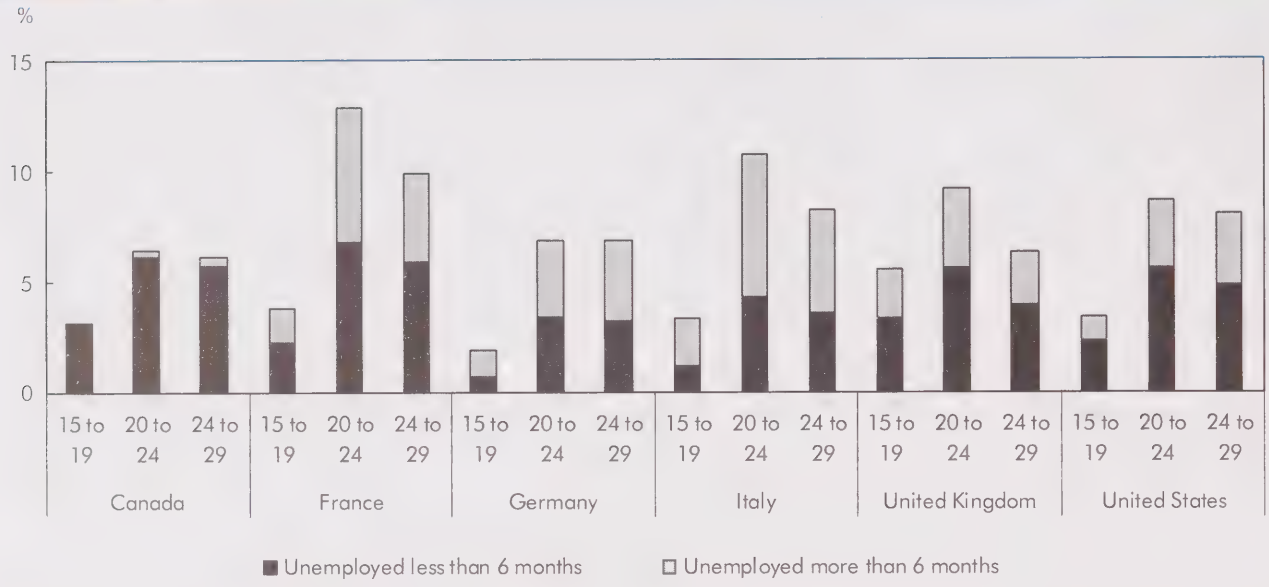
The OECD NEET unemployment rates represent the number of unemployed or long-term unemployed as a percentage of the total youth population. This is a different calculation from the standard Labour Force Survey (LFS) unemployment and long-term unemployment rates, which represent these same populations as a percentage of the labour force (see *Data sources and definitions*). According to the data, the percentage of Canadian youth in long-term unemployment is relatively low compared with other OECD countries. In 2009, a year in the midst of the recent economic downturn, teenage long-term unemployment was virtually nonexistent in Canada but ranged between 1.1% and 2.2% in all other OECD G7 countries (Chart A). Among youth over age 19, less than 1% were unemployed for more than six months in Canada, whereas for other countries the rates ranged from a minimum of 3.1% for U.S. youth age 20 to 24 to a maximum of 6.4% for Italian youth the same age. These findings confirm previous OECD research

Table 1 Employment and education status of youth age 15 to 29 in selected OECD countries

	In education[1]	Employed	Not employed or in education (NEET)		
			Total NEET	Unemployed	Not in labour force
	%				
Total age 15 to 29					
Canada	**42.8**	**43.9**	**13.3**	**5.7**	**7.6**
France	44.0	40.5	15.6	9.0	6.6
Germany	52.4	36.0	11.6	5.5	6.1
Italy	45.3	33.5	21.2	7.5	13.7
United Kingdom	40.4	43.9	15.6	7.0	8.6
United States	45.7	37.4	16.9	6.7	10.2
15 to 19					
Canada	**80.3**	**11.5**	**8.1**	**3.4**	**4.7**
France	89.7	3.4	6.9	3.9	3.0
Germany	92.7	3.6	3.8	2.0	1.8
Italy	83.8	5.0	11.2	3.2	8.0
United Kingdom	78.3	12.1	9.6	5.5	4.1
United States	84.7	6.5	8.8	3.4	5.4
20 to 24					
Canada	**38.0**	**46.7**	**15.3**	**7.0**	**8.3**
France	39.4	40.9	19.8	13.0	6.8
Germany	48.5	37.8	13.7	7.2	6.5
Italy	42.3	32.9	24.8	10.7	14.1
United Kingdom	31.5	49.3	19.1	9.2	9.9
United States	38.7	41.2	20.1	8.7	11.4
25 to 29					
Canada	**11.9**	**71.8**	**16.3**	**6.6**	**9.7**
France	4.9	75.4	19.8	9.9	9.9
Germany	18.6	64.5	16.9	7.1	9.8
Italy	15.7	57.9	26.4	8.2	18.2
United Kingdom	13.2	68.9	18.0	6.3	11.7
United States	13.5	64.7	21.8	8.0	13.8

1. Includes students with and without jobs.
Source: Organisation for Economic Co-operation and Development (OECD) database, 2009

Chart A Canada has the lowest levels of youth in long-term unemployment



Note: Excludes a small percentage of unknown duration.
Source: Organisation for Economic Co-operation and Development (OECD) database, 2009.

which found that Canada has consistently been among the few countries where youth have a "... very low incidence of long-term unemployment" (OECD 2010). Research into long-term unemployment has shown that North America generally has lower levels than most OECD countries (Machin and Manning 1998; Nickell 1997).

The reasons for youth being not in the labour force (NILF) are not available internationally but will be discussed later in the article for Canada.

Canadian NEET rate has declined over time, but has risen recently

The distribution of Canadian youth age 15 to 29 by education, employment and NEET status has changed over time. The overall NEET rate decreased from 22% in 1976 to 13% in 2011, mainly because of a decline in the NILF category for those age 20 to 24 and 25 to 29 (Table 2). This is a result of the influx of women into the labour force and out of the NILF category. In the years since 2008 and the start of the recent economic downturn, the NEET rate has been up by as much as 2 percentage points.

Since 1976, the percentage of youth attending school has steadily increased for all age groups—from 65% to 81% for those from age 15 to 19, 18% to 40% for those 20 to 24, and 7% to 13% for those 25 to 29. Over the past decade, there has also been a steady increase in the proportion of students age 15 to 24 who hold a job while attending school. This is particularly true for those age 20 to 24: since 2001, almost one-half of this group combine school and work.[2] The high student employment rate may be linked to the relatively lower rates of long-term unemployment among Canadian youth. Many graduates will start looking for career employment with significant part-time work experience under their belt.

As the school attendance rate has risen, the percentage employed has fallen for both the younger age groups (15 to 19 and 20 to 24). Conversely, although the school attendance rate has increased for those age 25 to 29, the percentage employed has also increased from 65% in 1976 to 70% in 2011—again the result of the increasing employment rate of women.

Table 2 Education and labour force activity of youth by age group

										Years since recent economic downturn[1]		
	1976	1981	1986	1991	1996	2001	2006	2007	2008	2009	2010	2011
							%					
All age 15 to 29												
Student	31	30	32	36	41	43	44	44	44	43	44	44
Employed	10	11	13	16	16	18	19	19	19	18	18	18*
Not employed	22	19	20	20	25	26	26	25	24	25	26	26*
Employed	47	51	48	45	42	44	44	44	44	44	43	43*
NEET[2]	22	19	19	19	17	13	12	12	12	13	14	13*
Unemployed	7	7	9	9	7	5	5	5	5	6	6	6*
Not in the labour force	15	12	10	9	10	8	7	7	7	8	7	8
15 to 19												
Student	65	66	75	78	80	81	81	80	80	80	82	81
Employed	17	22	26	32	26	28	29	30	31	29	27	27*
Not employed	48	45	49	46	54	53	52	50	49	51	54	54*
Employed	21	21	14	12	10	11	12	13	13	12	10	11*
NEET[2]	14	13	11	10	10	7	7	7	7	8	8	8
Unemployed	6	6	5	5	4	3	3	3	3	3	3	3
Not in the labour force	8	6	6	5	6	4	4	4	4	5	5	5
20 to 24												
Student	18	16	22	30	35	36	38	39	39	38	40	40
Employed	7	7	10	14	16	18	19	20	20	18	19	19
Not employed	11	9	13	16	19	19	19	19	19	20	20	21*
Employed	59	63	56	49	46	48	48	48	48	47	45	45*
NEET[2]	23	21	22	21	20	16	13	14	13	15	15	15*
Unemployed	8	9	12	11	9	6	6	6	6	7	8	7*
Not in the labour force	15	12	10	10	10	9	7	8	7	8	8	8
25 to 29												
Student	7	7	8	9	11	12	12	12	12	12	13	13
Employed	4	4	5	5	6	6	7	7	7	7	7	7
Not employed	3	2	4	4	5	5	6	5	5	5	6	5
Employed	65	69	68	68	67	72	72	73	73	72	70	70*
NEET[2]	28	24	24	23	22	16	16	15	15	16	17	17*
Unemployed	6	7	10	11	9	6	5	6	5	7	7	7*
Not in the labour force	23	17	14	12	13	10	10	10	10	10	10	10

* significant difference between 2011 and 2008 at the 0.01 level
1. Peak employment occured in Canada in October 2008.
2. Not enrolled in school or employed.
Source: Statistics Canada, Labour Force Survey, 1976 to 2011.

In 1976, women accounted for 91% of NILF in the 25-to-29 age group compared with 67% in 2011. Furthermore, in 1976, among non-students, 41% of women were NILF versus 4% of men. In 2011, 14% of non-student women were NILF versus 7% of men (data not shown).

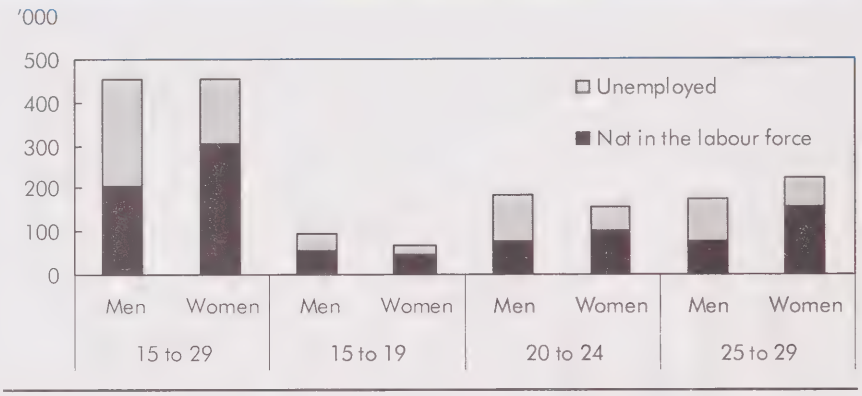
Following the recent downturn there have been small but significant decreases in the employment rates of students under age 20 and all non-students under age 30. At the same time, the overall NEET rate increased, as did the percentage of unemployed youth age 20 and over.

NEET sub-categories vary by age and sex

In 2011, 13% of youth age 15 to 29 (904,000 out of 6.8 million) were neither enrolled in school nor employed. The NEET population is equally divided between men and women (both with roughly 452,000)

and most are older—79% of male NEET youth (355,000) are between the ages of 20 and 29, as are 85% of female NEET youth (382,000) (Chart B). While most older male NEET youth are unemployed (58% of those age 20 to 24 and 55% of those 25 to 29), most female NEET youth are not in the labour force (NILF) (65% of 20- to 24-year-olds and 70% of those 25 to 29). Since the type of NEET inactivity (unemployed versus NILF) varies considerably by age and sex, they will be analysed separately in the remaining sections.

Chart B Distribution of NEET[1] youth varies by age and sex



1. Not enrolled in school or employed.
Source: Statistics Canada, Labour Force Survey, 2011.

Older males account for one-half of unemployed NEET youth

Looking at all youth, 5.7% (391,000) were unemployed in 2011 (Table 3).[3] This rate is lower than the standard unemployment rate because the denominator includes all youth, many of whom are not in the labour force—mainly students. This is why only a small percentage (3.1%) of all teenagers (15 to 19) are unemployed, since over 80% of them are in school. In absolute numbers, young men in their 20s account for more than one-half of unemployed NEET youth—200,000 out of 391,000.

The unemployed in relation to the labour force, or the LFS unemployment rate, is a better indicator of how non-student youth are doing in terms of finding employment. The LFS unemployment rate for 15- to 29-year-olds in 2011 was 11.8%. The rate was higher for teenage girls (18.7%), teenage boys (25.2%), men age 20 to 24 (15.7%), and those who had not graduated from high school (23.0%).

A logistic regression model was used to control for the relationship between age, education, and other factors possibly linked to being unemployed and in the labour force. The findings confirm that compared with men age 25 to 29, both younger age groups of men were significantly more likely to be unemployed. The rate for young women in all age groups did not differ significantly from the rate for men age 25 to 29.[4]

Having a higher level of education significantly reduced the probability of being unemployed. For example, compared with youth with a high school diploma, those with a university degree were less than two-thirds as likely to be unemployed (with an odds ratio of 0.6). Research has shown that the pursuit of higher education is positively associated with higher employment rates among youth (Hango and de Broucker 2007).

Youth who were married and without children were also significantly less likely to be unemployed compared with single youth. Finally, after controlling for other factors, youth living at home had significantly higher odds (1.5 times) of being unemployed than those not living at home, possibly reflecting the difficulty of living on one's own without a job.

Long-term unemployment uncommon but concentrated among men

Of the 391,000 unemployed youth in 2011, 55,000 had been looking for work for more than six months. This figure represents 1% of all youth from age 15 to 29 and 14% of the unemployed in this age group. This population is too small for detailed analysis, but simple cross-tabulations show that the majority comprises older youth—88% are age 20 to 29 (49,000 out

Table 3 Characterisitics of unemployed NEET[1] youth age 15 to 29

	Unemployed non-students			
	'000	% of all youth	% of labour force[2]	odds ratio[3]
All youth	**391**	**5.7**	**11.8**	..
Age and sex				
Men				
15 to 19	43	3.9	25.2	1.6*
20 to 24	106	9.0	15.7	1.3*
25 to 29 (ref.)	94	8.0	9.8	1.0
Women				
15 to 19	24	2.3	18.7	1.1
20 to 24	54	4.8	10.2	0.9
25 to 29	69	5.9	8.1	0.9
Education				
Less than high school	80	4.6	23.0	1.8*
High school diploma[4] (ref.)	165	6.5	14.3	1.0
Postsecondary non-university	97	6.3	8.8	0.7*
University degree	47	4.9	6.9	0.6*
Family status				
Single (ref.)	291	5.6	13.7	1.0
Married no children	57	5.9	7.5	0.8*
Married with children	44	7.1	9.8	1.0
Lives with parent(s)				
Yes	184	5.3	17.1	1.5*
No (ref.)	207	6.3	9.2	1.0
Place of birth				
Outside Canada	55	4.8	10.8	1.1
Canadian-born (ref.)	336	5.9	12.0	1.0
Lives in CMA				
Yes	268	5.4	11.3	0.9
No (ref.)	123	6.7	12.9	1.0

* significant difference from the reference group (ref.) at the 0.001 level
1. Not enrolled in school or employed.
2. This is the LFS unemployment rate of non-student youth, e.g., the number of unemployed youth as a percentage of the youth labour force.
3. This logistic regression calculation indicates whether certain variables increase or decrease the chances (odds) of youth being unemployed within the labour force.
4. Can include some postsecondary education.
Source: Statistics Canada, Labour Force Survey (LFS), 2011.

of 55,000). Of the long-term unemployed in their 20s, 66% are men (Table 4). Also, 54% of the long-term unemployed youth in their 20s have a high school diploma or less, compared with 47% of all 20- to 29-year-olds.[5] Young men age 20 to 29 are more likely than women to have a high school education or less (51% versus 42%), and those with lower levels of education have fewer employment opportunities and higher rates of unemployment (Hango and de Broucker 2007; Martin 2009).

Children increase NILF rates for women and decrease rates for men

The larger portion of youth neither in education nor employment (NEET) are not in the labour force (NILF)—7.5% (513,000) of all those age 15 to 29. More young women are NILF than men, 9.1% (305,000) versus 6.0% (208,000) (Table 5). More than one-third (117,000 or 38.4%) of NILF women are married with children compared with 6.7% of NILF men (14,000). Since family status has a different effect for men and women, the NILF data are shown in detail by sex.

Again, it is instructive to examine NEET NILF youth excluding the student population. In other words, if a youth is not going to school, it is important to understand his or her relationship with the labour market. Excluding students, what are the characteristics of the not-in-the-labour-force youth population?

Among the non-student population, 10.3% of men and 16.9% of women are NILF. Excluding students and after controlling for other factors, being married with children significantly increases the likelihood of women being NILF (3.1 times) and decreases it by about one-half for men (0.6) compared to being single. One-third (33.2%) of non-student, young married women with children are not in the labour force, compared with 6.3% of their male counterparts. This suggests that many young mothers are, at least temporarily, out of the labour force to care for young children.

Similar to the unemployed, fewer teenage girls and boys are NILF, since most are still in school. How-

Table 4 Long-term unemployed youth by sex and education

	All youth 20 to 29	Not long-term unemployed	Long-term unemployed (over 6 months)
		'000	
Total	**4,658**	**4,609**	**49**
		%	
Proportion who were men	51	51	66*
Proportion having high school diploma or less			
Both sexes	47	47	54
Men	51	51	58*
Women	42	42	45

* significant difference from the not long-term unemployed at the 0.01 level
Source: Statistics Canada, Labour Force Survey, 2011.

ever, among teenagers not in school, 1 in 4 girls and boys are NILF. Compared with non-student youth in their 20s, teenagers are significantly more likely to be not in the labour force (1.5 times for boys and 1.3 times for girls).

Lower education levels linked to higher NILF rates

Excluding students and after controlling for other factors, youth with higher levels of education are less likely to be out of the labour force. For example, youth with less than a high school diploma had the highest percentage not in the labour force (24.1% of men and 42.3% of women) while those with a university degree had the lowest (4.6% of men and 8.4% of women). The probability of being NILF is also significantly higher for men and women who were born outside Canada.

Activities of many NILF youth difficult to identify

Unlike the 6% of NEET youth who are unemployed and looking for employment, the main activity of NEET youth not in the labour force is less clear. This may be part of the reason there are negative connotations associated with NEET youth overall—that is, to not be in education, not be employed, and not be looking for employment implies inactive and unproductive behaviour that can lead to a negative or problematic state. "There is a widespread current perception that being 'NEET' (not in employment, education or training) presents a major risk for young people of becoming socially excluded" (Yates and Payne 2006, p. 329). However, before NEET NILF youth can be labelled as 'at-risk,' it is important to determine what they are doing.

The Labour Force Survey, the data source used for the OECD NEET indicator, does not ask about non-labour-market activities of youth who are NILF. Furthermore, no information is collected on the duration of NILF spells, which, similar to unemployment, could be a potential issue if the NILF activity is counterproductive or cause for concern. Another data source, however, the Youth in Transition Survey (YITS), can provide some information on the length of *any* NEET spell. Although the type of NEET spell is not known (unemployment or NILF), recent research on NEET using YITS has shown that almost 40% of youth had been NEET for 5 months or longer at least once over the 5 cycles of the survey but "few appear to be in a permanent state of detachment." The overall conclusion from the study found "that there is not a large sub-class of young Canadians who have become permanently detached from the schooling system or labour market" (Drewes 2011).

1 in 5 of NILF youth report wanting a job

Some NILF youth report wanting a job despite not searching for one. Among this group of NILF job-wanters, the LFS asks why they did not search for a job during the reference week. This information gives some insight into the main activity and current status of a portion of the NILF population. Of the 513,000 NILF youth, one-fifth (18%) reported wanting a job but stated they had not looked for one (Table 6). Some of the reasons for not searching reflect a somewhat negative situation, such as being discouraged and believing no work is available (1%), waiting for recall to a former job or for replies from employers (2%), and being too sick to search (2%). However, for the largest group (7%) of NILF youth wanting a job, the reasons for not job searching are not known.

Most NILF youth did not want a job

Most of the youth not in the labour force did not report that they wanted a job (418,000)—82% overall, 77% of men and 84% of women. For about one-half of this population, the main activity could be

Table 5 Characterisitics of youth not in the labour force

	Not in labour force	Men				Women			
	'000	'000	% of all men	% excluding students	odds ratio[1]	'000	% of all women	% excluding students	odds ratio[1]
All youth	**513**	**208**	**6.0**	**10.3**	..	**305**	**9.1**	**16.9**	..
Age									
15 to 19	99	53	4.9	23.6	1.5*	46	4.3	26.2	1.3*
20 to 24	177	76	6.4	10.1	0.9	101	8.9	16.0	1.0
25 to 29 (ref.)	237	79	6.6	7.5	1.0	158	13.6	15.8	1.0
Education									
Less than high school	163	72	7.7	24.1	2.5*	90	11.2	42.3	2.7*
High school diploma[2] (ref.)	203	86	6.4	10.9	1.0	117	9.9	20.9	1.0
Postsecondary non-university	95	35	4.5	5.6	0.6*	60	7.7	10.2	0.4*
University degree	52	14	3.5	4.6	0.5*	38	6.6	8.4	0.3*
Family status									
Single (ref.)	325	178	6.4	12.4	1.0	147	6.1	14.5	1.0
Married no children	57	15	3.7	4.2	0.4*	41	7.5	9.3	0.8*
Married with children	131	14	6.0	6.3	0.6*	117	30.5	33.2	3.1*
Lives with parent(s)									
Yes	194	116	6.2	15.0	1.4*	78	4.8	15.7	0.9
No (ref.)	319	92	5.8	7.3	1.0	227	13.1	17.3	1.0
Place of birth									
Outside Canada	120	35	6.4	11.7	1.6*	85	14.2	25.8	2.6*
Canadian-born (ref.)	393	173	5.9	10.0	1.0	220	8.0	14.9	1.0
Lives in CMA									
Yes	341	139	5.5	9.8	0.9	203	8.3	15.7	0.9
No (ref.)	171	69	7.3	11.3	1.0	102	11.5	19.7	1.0

* significant difference from the reference group (ref.) at the 0.001 level
1. This logistic regression calculation indicates whether certain variables increase or decrease the chances (odds) of non-student youth being not in the labour force.
2. Can include some postsecondary education.
Source: Statistics Canada, Labour Force Survey, 2011.

identified, and with the exception of youth permanently unable to work because of illness or disability, their situation was not indicative of a detachment from work or school. For example, 26,000 (5%) youth had a job that was to start or re-start in the future, 34,000 (7%) were students at other schools (see *Data sources and definitions*), and 103,000 (20%) had no recorded activity but had children at home (97,400 were women). The latter group likely includes parents at home caring for children.

For the remaining 226,000 NILF youth without children and not wanting work (44%), there is no information about their main activity, presumed or otherwise. The General Social Survey (GSS) is another data source that can help determine the activity of NILF youth. The GSS asks all respondents a question about what their main activity was during the preceding week—providing a similar, but not exact, OECD definition of NEET youth (see *Data sources and definitions*). The GSS findings show a comparable youth NEET rate to that of the LFS. In 2010, 15% of youth age 15 to 29 reported their main activity to be neither in school nor employed (NEET) during the previous week[6] (Table 7).

Of the NEET NILF youth identified in the GSS, 50% reported child care as their main activity, 10% household work, and 31% fell into categories too small to report, such as maternity leave, volunteering, and

Table 6 Reasons not looking for work among NEET[1] youth not in the labour force who reported wanting a job, and activity of those not wanting a job

	Both sexes		Men	Women
	'000	%	%	
All age 15 to 29 Not in labour force	**513**	**100**	**100**	**100**
Reported wanting a job	95	18	23	16
Discouraged[2]	5	1	1	1
Waiting for recall/replies	10	2	4	1
Going to school[3]	10	2	3	1
Temporary illness	12	2	3	2
Child care/family responsibilities	22	4	2	6
Other, unknown	35	7	10	5
Did not report wanting a job	418	82	77	84
Temporary layoff[4]	5	1	1	1
Long-term future start	21	4	6	3
Permanently unable to work	29	6	9	3
Student[3]	34	7	7	6
Other non-students (children at home)	103	20	3	32
Other non-students (no children at home)	226	44	50	40

1. Not enrolled in school or employed.
2. Believes no work is available.
3. Students are not considered not in the labour force, however, a small percentage of "other students" are not considered students in this study and therefore are not in the labour force (see *Data sources and definitions*).
4. Includes short-term future job starters and others wanting a job but none available.

Source: Statistics Canada, Labour Force Survey, 2011.

analysis of youth in the labour market—referring to the proportion of the population age 15 to 29 who are neither in employment nor education. NEET youth fall into two groups—either unemployed and actively looking for a job or not in the labour force (NILF).

The indicator emerged in the United Kingdom during a time of concern over disadvantaged youth becoming discouraged and at risk of social exclusion. Intervention policies were introduced to reduce NEET rates. Due to this history, the NEET indicator is associated with at-risk youth. Critique of the indicator suggests that not all NEET youth are at risk, and specifically targeting this group may come at the expense of others in greater need of policy interventions (Yates and Payne 2006; Roberts 2011).

Canada has had a NEET rate of between 12% and 14% over the past decade, which is relatively low

"Other – Specify." If Other – Specify was reported, respondents were asked to specify their main activity and interviewers were to write down the answer. Common write-in answers included leisure, March or school break, and playing sports. Examples of specific answers included being on sabbatical, doing a practicum, renovating, relaxing, and unemployed.[7] Although it is not possible to determine from the GSS whether the NILF youth wanted or did not want a job, the activity information suggests that few youth are idle.

Conclusion

Since the late 1990s, the OECD and some European countries have added the NEET indictor to their

Table 7 Main activity reported by youth during the past week[1]

	Both sexes		Men	Women
	'000	%	%	
All age 15 to 29 Total	**6,781**	**100**	**100**	**100**
Employed	2,961	44	47	40
Student	2,783	41	39	43
NEET[2]	1,037	15	14	17
Type of NEET	1,037	100	100	100
Unemployed	300	29	40	20
Not in labour force	617	59	44	73
Not stated	120	12	16	7
Reason not in labour force	617	100	100	100
Child care	307	50	F	72
Household work	64	10[E]	F	F
Long-term illness	F	F	F	F
Other	188	31	62	15[E]

1. Calculations based on all months except May through August.
2. Not enrolled in school or employed.

Source: Statistics Canada, General Social Survey, 2010.

compared with other G7 rates. In 2011, 13.3% of youth were NEET—5.7% unemployed and 7.5% NILF—with the remainder students (43.7%) or employed (43.0%). The unemployed, in relation to the labour force, revealed an under-30 unemployment rate of 11.8%.

Unemployment for youth is often an expected stage between finishing school and finding a job and is not necessarily detrimental, especially if it is short-term. Relative to other countries, Canada had low proportions of long-term unemployed youth, representing 1% of all youth and 14% of unemployed youth. Lower levels of education were significantly tied with higher rates of unemployment and long-term unemployment. Men under 25 were also more likely to be unemployed than young men age 25 to 29 or young women.

Among those not in the labour force, 18% reported wanting a job despite not having looked for one. Among the remaining 82% of NEET NILF youth who did not want a job, 5% had future work arrangements, 6% were permanently unable to work, 7% were non-traditional students, 20% had no known activity but had young children at home, and 44% had no known activity and no children at home. Based on corresponding GSS data, many youth in this latter "unknown" category report a wide range of unpaid activities.

NILF youth not attending school had significantly lower levels of education than their counterparts in the labour force, after controlling for other factors. This suggests that some NILF youth may be having difficulty finding employment.

Canadian NEET youth have been shown to be a heterogeneous group with many in unemployment—likely to be short-term—and many others not in the labour force. However, this is not to say that there are not youth in the NEET category who are at risk of disengagement, like those experiencing long-term unemployment or those who would like a job but have given up looking because they do not believe any work is available.

Notes

1. Japan is excluded due to a break in the series starting in 2004 (OECD 2011).
2. Other research has shown that, since the 1990s, almost one-half of postsecondary students were employed during the school year (Marshall 2010). The data in this study are based on the survey months of January, February and March, all prime school-term months.
3. The data in this section refer to the average for the months of January, February and March (see *Data sources and definitions*).
4. Although teenage girls had a high unemployment rate (18.7%), their small sample size (24,000 or 2.3% of all teenage girls) may partly explain the lack of statistical significance.
5. The analysis of long-term unemployed youth excludes the small number of teenagers in the category (6,000) to help clarify the link between the duration of unemployment and having a high school education, as most age 15 to 19 have not yet had a chance to finish high school.
6. In order to avoid the summer months when many youth are out of school, the GSS tabulations are based on all collection months except May through August.
7. Although the write-in answers for the main activity question are not on the master file, the author was given special access to the written responses.

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What's new?

Recent reports and studies

From Statistics Canada

Canada's rural population

In 2011 fewer than 1 in 5 Canadians (18.9%) were living in rural areas compared with nearly 9 in 10 in 1851. Over the past 160 years, the proportion of the population living in rural areas has declined steadily. More than 6.3 million Canadians were living in rural areas in 2011—about the same as in 1991. On the other hand, the population living outside rural areas has continued to increase. Between 2006 and 2011, Canada's overall growth rate of 5.9% exceeded that of the rural population of 1.1%.

The size of the rural population varies across Canada. In 2011, over 50% of the population of Prince Edward Island and Nunavut was living in rural areas.

For more information, see *Canada's Rural Population Since 1851*, Census In Brief, Statistics Canada, February 2012, available on Statistics Canada's website (www.statcan.gc.ca).

Factors in provincial labour productivity growth

Between 1997 and 2010, physical capital investment—like investment in machinery and equipment—was a key factor in labour productivity growth. Physical capital investment was more important than changes in human capital and multifactor productivity.

During this period, Alberta and Saskatchewan experienced the largest gains in capital intensity. In contrast, Newfoundland and Labrador's labour productivity growth can be better explained by rises in multifactor productivity.

These new productivity data for the provinces indicate that Newfoundland and Labrador experienced the highest annual growth in labour productivity at 3.9%, while Alberta experienced the slowest at 0.6%. The national rate of growth in labour productivity was 1.3% per year for this period.

For more information, see the March 12, 2012, issue of *The Daily,* available on Statistics Canada's website (www.statcan.gc.ca).

Firm entry and exit in Canada

This article examines the Canadian business sector population based on firm entry and exit patterns from 2000 to 2008.

Over this period, the average yearly entry rates were 10.8% and the average yearly exit rates were 9.0%. For the same period, the average yearly entry rates based on total business sector employment were 1.9% and the average yearly exit rate was 1.6%. This shows that the size of entry and exit firms is relatively small because the entry/exit rate based on the number of firms is significantly larger than the entry/exit rate based on percentage of employment.

From 2000 to 2008, there were 20% more entrants than exiting firms, resulting in growth in the number of firms and employment. Entry and exit rates varied across industries, as did the correlation between the two.

For more information, see "Firm entry and exit in Canada, 2000 to 2008," *Economic Insights*, Statistics Canada, January 2012, available on Statistics Canada's website (www.statcan.gc.ca).

Health of First Nations children living off reserve and Métis children

This article uses the 2006 Aboriginal Children's Survey to examine the health of First Nations children living off reserve and Métis children younger than 6. The findings show 85% of First Nations children and 87% of Métis children in excellent or good health, com-

pared to 90% of all Canadian children. Asthma, speech and language difficulties, allergies, and lactose intolerance were the most common chronic conditions reported.

The analysis suggests that social factors such as parental education, household income, smoking in the home, food security, and perceptions of housing conditions and health facilities in the community are associated with child health.

For more information, see "Health of First Nations children living off reserve and Métis children younger than age 6," *Health Reports*, Statistics Canada, February 2012, available on Statistics Canada's website (www.statcan.gc.ca).

■ *Is Canada losing its status as a debtor nation?*

This article examines the changes Canada's net international investment position (net IIP) over the last four generations. It examines the difference between Canada's financial liabilities—the value of assets foreigners have in Canada—and Canada's financial assets—the value of assets that Canadians have abroad.

Canada's net financial position in relation to the rest of the world has improved significantly. The value of assets that Canadians have abroad has increased from 20% of the value of its external liabilities in 1926 to 88% in 2010. This increase can be explained by growth in Canadian investments abroad, not by foreigners investing less in Canadian industries.

During the 1990s, growth in Canadian financial assets were driven by portfolio investments abroad that increased at an average rate of 17.1% per year This trend continued until mid 2007, but was reversed by 2009 as the growth of Canada's financial liabilities outpaced that of Canada's financial assets for the first time in two decades.

For more information, see "Is Canada losing Its status as a debtor nation?," *Economic Insights*, Statistics Canada, February 2012, available on Statistics Canada's website (www.statcan.gc.ca).

■ *Market expansion and productivity growth*

This paper examines the association between entry into new international markets, entry into new domestic markets and productivity growth. The results for those who entered new markets are compared to those who maintained the status quo and those who exited some markets but entered others.

The findings suggest that Canadian manufacturing firms that enter new international markets or new domestic markets experience similar increases in productivity growth. Furthermore, firms that exit the export market, followed by entry to new domestic markets, do not experience significant declines in productivity growth. The authors also find that firms that moved to new markets tended to be more innovative, aware of market competition and adaptable.

This paper uses Statistics Canada's Workplace and Employee Survey (WES) and data from Statistics Canada's Annual Survey of Manufactures (ASM).

For more information, see *Market Expansion and Productivity Growth*, Economic Analysis Research Paper Series, Statistics Canada, March 2012, available on Statistics Canada's website (www.statcan.gc.ca).

■ *The Canadian population in 2011*

The 2011 Census enumerated 33,476,688 people, almost twice as many as in 1961 and 10 times as many as in 1861. Between 2006 and 2011, Canada's population increased by 5.9%, a 0.5 percentage point increase from the 2001 to 2006 census period.

Canada's population growth was the highest of the G8 countries in the 2006 to 2011 period. Net migration accounted for about two-thirds of Canada's growth.

All provinces and most territories experienced population increases between 2006 and 2011. Yukon experienced the largest growth rate overall, while Alberta's population grew the fastest among all provinces.

For more information, see *The Canadian Population in 2011: Population Counts and Growth*, Census Population and Dwelling Counts, Statistics Canada, February 2012, available on Statistics Canada's website (www.statcan.gc.ca).

■ *The self-employment choices of children of immigrants*

This study looks at changes in self-employment patterns between immigrant parents and their children. It examines the relationship between self-employment and three determinants: the expected earning differentials between employment and self-employment;

difficulties in the labour market; and ethnic enclaves. Self-employment patterns among Canadian-born parents and their children were also analysed for comparison purposes.

The findings indicate there has been a substantial decrease in the earnings of the self-employed relative to paid employees within all groups. Second, labour market difficulties did not significantly push individuals towards self-employment. Finally, the effect of ethnic enclaves varied by gender and ethnic group. Considering these three findings, the study suggests that self-employment has shifted from a necessity for many immigrants to a choice for the children of immigrant parents.

This study uses data from the 1981 Census to identify the parent cohort and from the 2006 Census for the cohort of children, each comprising 25- to 44-year-olds.

For more information, see *Choice or Necessity: Do Immigrants and Their Children Choose Self-Employment for the Same Reasons?,* Analytical Studies Branch Research Paper Series, Statistics Canada, March 2012, available on Statistics Canada's website (www.statcan.gc.ca).

■ *Self-employment and children of immigrants*

The results indicate that Canadian-born male children of immigrants had a lower self-employment rate in 2006 than their fathers in 1981. Alternatively, for Canadian-born female children of immigrants, the self-employment rate increased when compared to their mothers.

The decline in self-employment of Canadian-born male children of immigrants was also observed for male children of Canadian-born parents. For both groups, longer schooling, fewer marriages, and fewer children were related to the decline in self-employment.

Similarly, the observed increase in the self-employment rate of daughters of immigrants was also found for daughters of Canadian-born parents.

Though patterns of self-employment are similar for children of immigrants and children of Canadian-born parents, a higher rate of self-employment among immigrant fathers compared to their Canadian-born counterparts was also found among their sons.

This paper uses data from the 1981 and 2006 Canadian Census of Population to examine the self-employment rate among subsequent generations when both were 25 to 44 years of age.

For more information, see *Bosses of Their Own: Are Children of Immigrants More Likely Than Their Parents to be Self-Employed?,* Analytical Studies Branch Research Paper Series, Statistics Canada, March 2012, available on Statistics Canada's website (www.statcan.gc.ca).

■ *Volunteering in Canada*

In 2010, 47% of Canadians age 15 and over did volunteer work. This represents a 6.4% increase from 2007 and a 12.5% increase from 2004. Despite this increase in volunteers, the number of hours of volunteer work remained virtually unchanged from 2007. In 2010, 10% of volunteers were responsible for 53% of volunteer hours.

This article uses data from the 2010 Canada Survey on Giving, Volunteering and Participating to describe socioeconomic characteristics of Canadian volunteers. In 2010, people age 15 to 24 were more likely to volunteer (58%) compared to those age 25 to 34 (46%) and 35 and 44 (54%).

One-half of employed Canadians did volunteer work, whereas 34% of the unemployed and 44% of Canadians who were not in the labour force volunteered. On the other hand, those who were not in the labour force recorded significantly higher hours than their employed counterparts.

In 2010, 58% of people with incomes of $120,000 or more volunteered, compared to 33% of those with household incomes under $20,000.

For more information, see "Volunteering in Canada," *Canadian Social Trends*, Statistics Canada, March 2012, available on Statistics Canada's website (www.statcan.gc.ca).

From other organizations

■ *Americans do IT better*

U.S. productivity growth accelerated after 1995, especially in sectors that produce information technologies (IT) or intensively use IT. U.S. multinationals also achieved higher productivity than European multina

tionals. The authors suggest that the U.S. IT-related productivity gains stem from American 'people management' practices.

Both domestically based American firms and U.S. multinationals operating in Europe have higher scores on people management practices such as promotions, rewards, hiring and firing. These scores may be linked to IT-related U.S. productivity growth because people management practices may enable firms to better exploit IT.

This study uses the U.K. Office of National Statistics data and a firm-level panel covering seven European countries.

To view this article, see "Americans do IT better: US multinationals and the productivity miracle," Nicholas Bloom, Raffaella Sadun, and John Van Reeneen, *American Economic Review*, February 2012.

■ *Canadian public service employee satisfaction*

This paper uses the 2005 Public Service Employee Survey to examine the factors related to employee satisfaction. Employee satisfaction is hypothesized to be related to six factors identified in previous studies.

The results indicate Canadian public service employee satisfaction is associated with employees' belief in opportunities for advancement, just classification, observance of client service standards, life–work balance, recognition by supervisors, team relations, information management and the belief that senior management will make use of feedback.

To view this article, see "Canadian public service employee satisfaction and its main drivers," Alexandra Hickey and Scott Edward Bennet, *Canadian Public Administration*, March 2012.

■ *Does inequality lead to a financial crisis?*

Income inequality and credit in the United States have increased significantly since the 1970s, leading some to speculate that they are related to the recent financial crisis. This paper examines the relationship between income inequality and credit and financial crises in the United States.

The findings suggest that while credit booms are associated with financial crises, rising income inequality is not associated with credit booms. Instead, low interest rates and economic expansion are found to be the two key determinants of credit booms.

To view this paper, see *Does Inequality Lead to a Financial Crisis?,* Michael D. Bordon and Christopher M. Meissner, NBER Working Paper Series 17896, National Bureau of Economic Research, March 2012.

■ *Housing prices and birth rates*

This paper examines the relationship between housing prices and household fertility decisions in the United States. Results suggest that housing prices are linked to birth rates. Among female homeowners, an increase in housing prices coincides with an increase in current period fertility. On the other hand, among non-homeowners, an increase in housing prices is associated with a decrease in current period fertility.

The authors believe that if short-term increases in housing prices lead to an increase of births among homeowners and a decrease of births among non-owners, some individuals use home equity to fund childbearing goals.

This paper uses data from the Vital Statistics Natality File (1990 to 2007), the Federal Housing Agency Housing Price Index, the Current Population Survey and the 1990 U.S. Census.

To view this article, see "House prices and birth rates: The Impact of the real estate market on the decision to have a baby," Lisa J. Dettling and Melissa Schettini Kearney, NBER Working Paper, *NBER Digest Online,* February 2012.

■ *Housing booms and city centres*

This study notes that while the 1996 to 2006 American housing boom is often treated as a national phenomenon, the levels of price growth differed greatly across and within metropolitan areas. Moreover, the post-2006 housing market bust dramatically affected the areas that had experienced booms.

Results indicate steeper price growth in city centres and centralized locations in metropolitan areas where higher-income people were more likely to reside in suburbs. Some evidence suggests that poorer inner-

city areas experienced more rapid price growth because of the gentrification of run-down urban areas resulting in displacement of lower-income residents.

Of the variation in housing price growth across 300 metropolitan areas, 70% was explained by initial prices, weather conditions, density and education of inhabitants. Centralization was a strong predictor of price growth within metropolitan areas during this period.

To view this paper, see *Housing Booms and City Centers,* Edward L. Glaeser, Joshua D. Gottlieb and Kristina Tobio, NBER Working Paper 17914, National Bureau of Economic Research, March 2012.

■ *What explains trends in household debt in Canada?*

Over the past 30 years, non-mortgage and mortgage debt has increased faster than income for all age groups. For Canadian households, the ratio of debt-to-disposable income has now risen to approximately 150%. This paper examines the main factors associated with the increase in household debt since the late 1990s.

The article attributes increases in mortgage and consumer credit to general income growth and low interest rates, higher housing prices and financial innovation. Furthermore, the rise in consumer credit coincided with an increase in non-mortgage credit secured by housing assets.

The results indicate that population aging has had a moderating effect on credit growth since the late 1990s, but not enough to offset the higher levels of household debts of younger cohorts.

This paper uses the Canadian Financial Monitor (CFM) survey conducted by Ipsos Reid.

To view this article, see "What explains trends in household debt in Canada?," Allan Crawford and Umar Faruqui, *Bank of Canada Review, 2011-2012.*

■ *Why don't women patent?*

This paper uses data from the 2003 National Survey of College Graduates to examine why women hold such a small proportion of patents in the United States. Women in the United States represent 7.5% of holders of patents and 5.5% of holders of commercialized patents.

The study finds that 7% of the gender difference in patent holding can be accounted for by women's lower probability of holding a science or engineering degree. Those without a science or engineering degree explain 15% of the gender differences, and 78% of the differences are explained by lower female patenting among holders of a science or engineering degree. For those that hold a science or engineering degree, the authors find that women's underrepresentation in engineering and development and design accounts for much of the gap.

Women's underrepresentation as holders of patents in the United States raises the possibility of inefficient use of female innovative capacity. The authors estimate that closing the gender patent gap could increase the U.S. GDP per capita by 2.7%.

To view this paper, see *Why Don't Women Patent?,* Jennifer Hunt et al., NBER Working Paper 17888, National Bureau of Economic Research, March 2012.

In the works

Some of the topics in upcoming issues

The evolution of wealth over the life cycle

This paper uses data from the Survey of Financial Security and the Survey of Consumer Finances to study the evolution of the financial wealth of Canadians over their life cycle.

Delayed retirement

Given recent findings that retirement has been significantly delayed since the mid-1990s, this new article examines how working-life expectancy has evolved by educational level and the various reasons for retiring (following a layoff or illness or to be a caregiver).

Job quality of younger workers

This article uses data from the Survey of Labour and Income to study changes in the quality of younger workers' jobs from 1993 to 2009.

Gambling 2012

This fact sheet presents the latest facts and figures on gambling in Canada. It examines gambling participation and expenditure rates by household income. The analysis is based on the Labour Force Survey, the Quarterly Income and Expenditure Accounts and the Survey of Household Spending.

Unionization 2012

This fact sheet presents the latest facts and figures on unionization in Canada. It examines unionization rates, earnings, wage settlements, inflation and strikes and lockouts. The analysis is based mainly on data from the Labour Force Survey.

Varia

In this issue: Work absences in 2011

Previous updates

Retirement – Summer 2006

Minimum wage – Summer 2010

Work absences – Summer 2011

Gambling – Winter 2011

Unionization – Winter 2011

Economic and social indicators

Property taxes – Autumn 2003

Provincial wealth inequality – Spring 2005

Tourism – Summer 2005

Residential construction – Autumn 2005

Education – Winter 2005

Personal debt – Spring 2007

Provincial labour force differences by education – Summer 2008

Contacts

Administrative data

Small area and administrative data
Customer Services
613-951-9720

Business surveys

Annual Survey of Manufactures and Logging
Client Services
613-951-9497

Annual surveys of service industries
Client Services
613-951-4612

Business Conditions Survey of Manufacturing Industries
Claude Robillard
613-951-3507

Census

Labour force characteristics
Sandra Swain
613-951-6908

Income statistics
Eric Olson
613-951-0220

Employment and income surveys

Labour Force Survey
Marc Lévesque
613-951-4090

Survey of Employment, Payrolls and Hours
Sylvie Picard
613-951-4003

Employment Insurance Statistics Program
Gilles Groleau
613-951-4091

Major wage settlements
Workplace Information Directorate
(Human Resources and Social Development Canada)
819-997-3117 or 1-800-567-6866

Labour income
Anna MacDonald
613-951-3784

Survey of Labour and Income Dynamics
Survey of Financial Security
Survey of Household Spending
Client Services
613-951-7355 or 1-888-297-7355

General Social Survey

Education, Work and Retirement
Aging and Social Support
Time Use
Client Services
613-951-5979

Pension surveys

Pension Plans in Canada Survey
Bruno Pépin
613-951-4023

Quarterly Survey of Trusteed Pension Funds
Gregory Sannes
613-951-4034

Special surveys

Adult Education and Training Survey
Client Services
613-951-7608 or 1-800-307-3382

National Graduates Survey
Client Services
613-951-7608

Work absences in 2011

There are many kinds of absence. Some, like annual vacation, are generally considered beneficial for both the organization and the employee. Since they are usually scheduled, their effect on the organization can be fairly easily absorbed; the same can be said of statutory holidays. Other absences, for instance those caused by illness and family-related demands, are generally unavoidable, as are those due to inclement weather.

Absenteeism, a term used to refer to absences that are avoidable, habitual and unscheduled, is a source of irritation to employers and co-workers. Such absences are disruptive to proper work scheduling and output, and costly to organizations and the economy as a whole. Although absenteeism is widely acknowledged to be a problem, it is not easy to quantify. The dividing line between avoidable and unavoidable is difficult to draw, and absenteeism generally masquerades as legitimate absence. The Labour Force Survey (LFS) can provide measures of time lost because of personal reasons—that is, illness or disability, and personal or family responsibilities. However, within these categories, it is impossible to determine if an absence is avoidable or unscheduled. LFS data on absences for personal reasons can, however, be analyzed to identify patterns or trends that indicate the effect of absenteeism (see *Data source and definitions*).

Recent trends—2001 to 2011

In the first half of the 2000s, both the incidence and the number of days lost for personal reasons (illness or disability, and personal or family responsibilities) trended upwards. In the latter half of the 2000s, the rates were flat or declined slightly. However, absence rates were somewhat higher in 2011 than in 2001 (Chart A).

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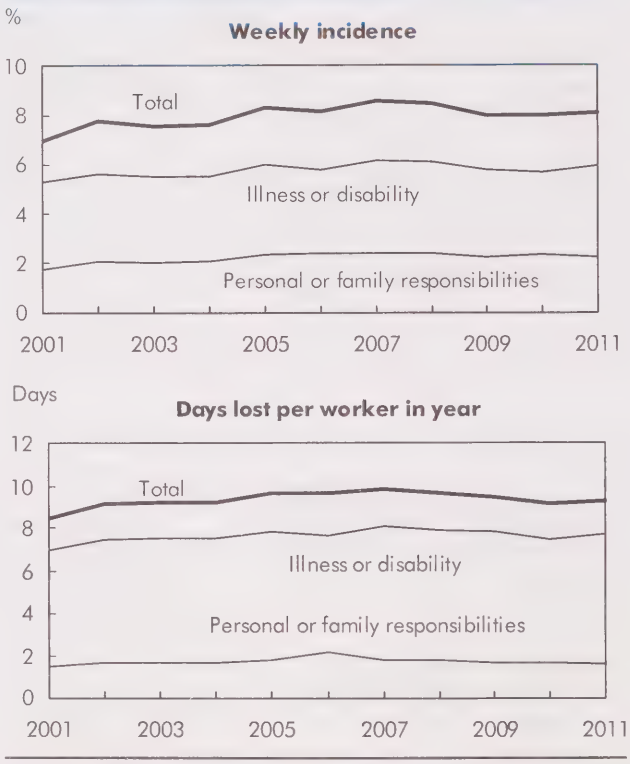
Chart A Work absence rates, 2001 to 2011



Source: Statistics Canada, Labour Force Survey.

In an average week in 2001, excluding women on maternity leave,[1] 7.0% of all full-time employees holding one job were absent from work for all or part of the week for personal reasons. By 2011, the figure had risen to 8.1% (913,000) (Table 1). Total work time missed also rose, from 3.4% of the scheduled week in 2001 to 3.7% in 2011; this was up slightly from 2010. Extrapolated over the full year, work time lost for personal reasons increased from the equivalent of 8.5 days per worker in 2001 to 9.3 days in 2011.

Variations in absence rates in 2011

Absence for personal reasons differs among various worker groups. Several factors are responsible—principally working conditions (physical environment, degree of job stress, employer–employee relations, collective agreement provisions and work schedules); adequacy and affordability of community facilities like child care centres and public transportation; family circumstances, especially the presence of preschool children or other dependent family members; and physical health of the worker, a factor closely related to age. Measuring the effects of these and other contributing factors is not easy since many are not captured by the LFS. However, some insight was gained by examining personal absences in 2011 by selected demographic characteristics, occupation and industry, and other attributes like union and job status.

Demographic differences

In 2011, excluding women on maternity leave, an estimated 8.1% of full-time employees missed some work each week for personal reasons: 5.9% for own illness or disability and 2.2% for personal or family responsibilities (Table 2). As a result, full-time employees lost 3.7% of their work time each week.

On average, each full-time employee lost 9.3 days in 2011 for personal reasons (7.7 for own illness or disability plus 1.6 for personal or family demands). This amounted to an estimated 105 million work days for all full-time employees. Men lost fewer days than women—7.7 (6.4 for illness or disability plus 1.4 for personal or family demands) versus 11.4 (9.4 plus 2.0).

The presence of preschool-age children exerts a strong influence on work absences for personal or family responsibilities. In 2011, full-time employees in families with at least one preschool-age child lost an average of 3.0 days, compared with only 1.4 for those in families without children.

Work days missed because of illness or disability tended to rise with age, from an average of 5.1 days for youth (15 to 19) to 11.5 for full-time employees age 55 to 64.

Industry and sector

Work absence rates differ by sector (public or private) and industry, with almost all of the difference arising from illness and disability absences (Table 3). Contributing factors include the nature and demands of the job, the male–female composition of the workforce, and union density—the last being a strong determinant of the presence of paid sick or family leave.

Full-time employees in the public sector (more likely unionized or female) lost more work time (12.9 days) in 2011 for personal reasons than their private-sector counterparts (8.2 days).

At the major (2-digit) industry level, the most work days were missed by employees in health care and social assistance (14.0 days), public administration (12.8) and transportation and warehousing (12.3).

The lowest averages were recorded by full-time workers in professional, scientific and technical services (5.8), other services (except public administration) (6.5) and primary industries (7.2).

Occupation

Contributing factors for absence rates by occupation are similar to those for industry (Table 4). Again, as by major industry, differences arose mainly from time lost due to illness or disability.

The most days lost in 2011 were recorded for full-time employees in health occupations (14.1) and occupations unique to production (10.8). Workers in natural and applied sciences (5.8), management (6.8), and culture and recreation (7.3) recorded the fewest days lost.

Union coverage, job status, workplace size and job tenure

Full-time workers who belonged to unions or were covered by collective agreements missed more work days on average in 2011 for personal reasons than their non-unionized counterparts (13.2 versus 7.5) (Table 5).

Workers with permanent jobs (more likely to be unionized) lost more work days (9.6) than those whose jobs were not permanent (7.0).

Days lost tended to rise with workplace size, increasing from a low of 7.5 in workplaces with less than 20 employees (firms more likely to have low union rates) to 11.1 in workplaces with more than 500 employees (firms likely to have high union rates).

Days lost tended to rise with job tenure, with almost all of the differences arising from illness and disability. Employees with tenure of up to 1 year lost 6.2 days, while those with over 14 years lost 11.7 days (the latter group was also likely older).

Data source and definitions

The data in this article are annual averages from the **Labour Force Survey** (LFS). They refer to full-time employees holding only one job. Part-time, self-employed and unpaid family workers are excluded because they generally have more opportunities to arrange their work schedules around personal or family responsibilities. Multiple job holders, too, are excluded because it is not possible, using LFS data, to allocate time lost, or the reason for it, to specific jobs. Women on maternity leave are also excluded. However, men using paid paternity (in Quebec only) and parental leave are included in the calculation until 2006.

Some human resource practitioners exclude persons on long-term illness or disability leave (exceeding one year) from their attendance management statistics. Such persons are, however, included in Statistics Canada's work absence estimates if they count themselves as employed (that is, they continue to receive partial or full pay from their employers). In 2011, the number of employed persons on such long-term illness or disability leave averaged 33,200 in a typical week. Their exclusion would have reduced the weekly work absence incidence for illness or disability from 5.9% to 5.6%, the inactivity rate from 3.1% to 2.8%, and days lost per worker that year from 7.7 to 7.0.

Personal reasons for absence are split into two categories: 'own illness or disability' and 'personal or family responsibilities' (caring for own children, caring for elder relative, and other personal or family responsibilities). Absences for these two types of reasons represented 28% of all time lost by full-time paid workers each week in 2011. Vacations, which accounted for 40% of total time away from work, are not counted in this article, nor are statutory holidays, which represented 12%. Maternity/parental leave represented 12% and other reasons, 7%.

The **incidence of absence** is the percentage of full-time paid workers reporting some absence in the reference week. In calculating incidence, the length of work absence—whether one hour, one day, or one full week—is irrelevant.

The **inactivity rate** shows hours lost as a proportion of the usual weekly hours of full-time paid workers. It takes both the incidence and length of absence in the reference week into account.

Days lost per worker are calculated by multiplying the inactivity rate by the estimated number of working days in the year (250).

Reasons for work absences in the LFS

The LFS sets out the following reasons for being away from work:

- own illness or disability
- caring for own children
- caring for elder relative (60 years or over)
- maternity leave (women only)
- parental leave (men only and starting in 2007)
- other personal or family responsibilities
- vacation
- labour dispute (strike or lockout)
- temporary layoff due to business conditions
- holiday (legal or religious)
- weather
- job started or ended during week
- working a short time (for example, because of material shortages, or plant maintenance or repair)
- other

Personal or family responsibilities include caring for own children, caring for elder relative, and other personal or family responsibilities.

Province and CMA

Work-absence levels differed by geographic area (Table 6), with most of the variation again arising from illness or disability.

Full-time employees in Saskatchewan (11.0) lost the most work time in 2011, followed by those in New Brunswick, Quebec, and Nova Scotia (10.8 each). Those in Alberta (7.9) and Ontario (8.3) lost the least.

Among the census metropolitan areas, Gatineau (11.7), Victoria (11.1) and Montréal (10.8) lost the most days per full-time worker. Guelph (6.8), Toronto (7.1) and Calgary (7.1) lost the least.

Note

1. Exclusion of maternity leave started in 1997 with the introduction of the revised Labour Force Survey questionnaire.

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Table 1 Absence rates for full-time employees by sex, 2001 to 2011[1]

	Incidence[2]			Inactivity rate[3]			Days lost per worker in year[4]		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities
	%			%			days		
Both sexes									
2001	7.0	5.3	1.8	3.4	2.8	0.6	8.5	7.0	1.5
2002	7.8	5.6	2.1	3.6	3.0	0.7	9.1	7.4	1.7
2003	7.5	5.5	2.0	3.7	3.0	0.7	9.2	7.5	1.7
2004	7.6	5.5	2.1	3.7	3.0	0.7	9.2	7.5	1.7
2005	8.3	6.0	2.3	3.9	3.1	0.7	9.7	7.8	1.8
2006	8.2	5.8	2.4	3.9	3.0	0.9	9.7	7.6	2.1
2007	8.6	6.2	2.4	4.0	3.2	0.7	9.9	8.1	1.8
2008	8.5	6.1	2.4	3.9	3.2	0.7	9.7	7.9	1.8
2009	8.0	5.8	2.2	3.8	3.1	0.7	9.5	7.8	1.7
2010	8.0	5.7	2.3	3.6	2.9	0.7	9.1	7.4	1.7
2011	8.1	5.9	2.2	3.7	3.1	0.7	9.3	7.7	1.6
Men									
2001	6.1	4.6	1.6	3.1	2.5	0.5	7.6	6.4	1.3
2002	6.7	4.8	1.9	3.2	2.6	0.6	8.0	6.5	1.6
2003	6.5	4.7	1.8	3.3	2.6	0.6	8.2	6.6	1.5
2004	6.6	4.6	2.0	3.2	2.6	0.7	8.0	6.4	1.6
2005	7.2	5.2	2.1	3.4	2.7	0.7	8.6	6.9	1.7
2006	7.2	5.1	2.1	3.5	2.7	0.8	8.7	6.7	1.9
2007	7.3	5.2	2.1	3.3	2.7	0.6	8.4	6.8	1.6
2008	7.3	5.1	2.2	3.3	2.7	0.6	8.2	6.7	1.6
2009	6.8	4.9	1.9	3.2	2.6	0.6	8.1	6.6	1.5
2010	6.7	4.7	2.0	3.1	2.5	0.6	7.6	6.2	1.4
2011	6.9	4.9	1.9	3.1	2.5	0.5	7.7	6.4	1.4
Women									
2001	8.2	6.2	2.0	3.9	3.2	0.7	9.8	8.0	1.8
2002	9.2	6.7	2.4	4.3	3.5	0.8	10.7	8.7	1.9
2003	8.9	6.6	2.3	4.3	3.5	0.8	10.7	8.8	1.9
2004	8.9	6.6	2.3	4.3	3.6	0.7	10.9	9.0	1.9
2005	9.6	7.0	2.6	4.5	3.7	0.8	11.2	9.2	2.0
2006	9.5	6.8	2.7	4.5	3.5	1.0	11.2	8.8	2.4
2007	10.3	7.5	2.8	4.8	4.0	0.9	12.0	9.9	2.1
2008	10.2	7.3	2.8	4.7	3.8	0.9	11.8	9.6	2.2
2009	9.5	7.0	2.5	4.5	3.7	0.8	11.4	9.3	2.0
2010	9.6	6.9	2.7	4.4	3.6	0.8	11.0	8.9	2.1
2011	9.7	7.0	2.6	4.6	3.8	0.8	11.4	9.4	2.0

1. Excluding maternity leave. However, men on paid paternity (in Quebec only) or parental leave are included in the calculation until 2006.
2. Absent workers divided by total.
3. Hours absent divided by hours usually worked.
4. Inactivity rate multiplied by working days in year (250).
Source: Statistics Canada, Labour Force Survey.

Table 2 Absence rates for full-time employees by sex, age, education and presence of children, 2011[1]

	Incidence[2]			Inactivity rate[3]			Days lost per worker in year[4]		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities
	%			%			days		
Age									
Both sexes	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
15 to 19	6.9	5.3	1.6	2.6	2.0	0.6	6.5	5.1	1.4
20 to 24	6.4	4.7	1.7	2.4	1.8	0.5	5.9	4.6	1.3
25 to 34	8.0	5.5	2.5	3.1	2.4	0.7	7.8	6.1	1.8
35 to 44	8.3	5.6	2.6	3.5	2.8	0.7	8.8	7.0	1.8
45 to 54	8.1	6.1	2.0	4.1	3.5	0.6	10.3	8.8	1.5
55 to 64	9.4	7.3	2.1	5.3	4.6	0.7	13.2	11.5	1.7
65 and over	6.9	5.2	1.8	4.1	3.4	0.7	10.2	8.5	1.6
Men	6.9	4.9	1.9	3.1	2.5	0.5	7.7	6.4	1.4
15 to 19	6.9	5.5	1.4	2.6	2.1	0.5	6.5	5.3	1.2
20 to 24	6.0	4.3	1.6	2.2	1.7	0.5	5.5	4.3	1.2
25 to 34	6.6	4.6	2.0	2.5	2.0	0.6	6.3	5.0	1.4
35 to 44	6.9	4.7	2.2	2.9	2.3	0.6	7.1	5.7	1.5
45 to 54	6.9	5.1	1.8	3.4	2.9	0.5	8.4	7.2	1.2
55 to 64	8.0	6.0	2.0	4.5	3.9	0.6	11.2	9.7	1.5
65 and over	6.9	5.1	1.8	4.2	3.5	0.7	10.5	8.8	1.8
Women	9.7	7.0	2.6	4.6	3.8	0.8	11.4	9.4	2.0
15 to 19	6.8	4.9	1.9	2.6	1.9	0.7	6.5	4.7	1.7
20 to 24	7.0	5.1	1.9	2.6	2.0	0.6	6.5	5.1	1.5
25 to 34	9.9	6.8	3.1	4.0	3.1	0.9	10.0	7.6	2.3
35 to 44	9.9	6.8	3.1	4.4	3.5	0.9	11.0	8.7	2.3
45 to 54	9.5	7.3	2.2	5.0	4.3	0.7	12.6	10.9	1.7
55 to 64	11.2	8.8	2.4	6.3	5.5	0.8	15.8	13.8	2.0
65 and over	7.0	5.3	F	3.8	3.3	F	9.6	8.1	F
Educational attainment									
Both sexes	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
Less than grade 9	8.2	6.3	1.8	4.4	3.9	0.5	11.1	9.8	1.3
Some high school	9.1	6.9	2.2	4.8	4.1	0.7	12.0	10.2	1.8
High school graduation	8.0	6.0	2.0	3.9	3.3	0.6	9.7	8.2	1.5
Some postsecondary	8.2	6.2	2.0	3.8	3.2	0.6	9.4	8.0	1.4
Postsecondary certificate or diploma	8.4	6.1	2.3	4.0	3.3	0.7	9.9	8.2	1.7
University degree	7.6	5.1	2.4	2.9	2.3	0.7	7.4	5.7	1.7
Presence of children									
Both sexes	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
With children	8.6	5.7	2.9	3.8	3.0	0.8	9.4	7.4	2.1
Preschoolers – under 5 years	9.5	5.5	4.0	3.8	2.5	1.2	9.4	6.4	3.0
5 to 12 years	8.6	5.7	2.9	3.7	2.9	0.7	9.1	7.3	1.8
13 years and over	7.9	5.9	2.0	3.9	3.3	0.6	9.7	8.2	1.5
Without children	7.8	6.0	1.8	3.7	3.1	0.5	9.2	7.9	1.4

1. Excluding maternity leave. However, men on paid paternity (in Quebec only) or parental leave are included in the calculation until 2006.
2. Absent workers divided by total.
3. Hours absent divided by hours usually worked.
4. Inactivity rate multiplied by working days in year (250).
Source: Statistics Canada, Labour Force Survey.

Table 3 Absence rates for full-time employees by industry and sector, 2011[1]

	Incidence[2]			Inactivity rate[3]			Days lost per worker in year[4]		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities
	%			%			days		
All industries	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
Public employees	10.5	8.0	2.6	5.2	4.3	0.8	12.9	10.9	2.0
Private employees	7.3	5.2	2.1	3.3	2.7	0.6	8.2	6.7	1.5
Goods-producing	**7.2**	**5.0**	**2.2**	**3.3**	**2.7**	**0.6**	**8.3**	**6.8**	**1.5**
Primary	5.8	3.9	1.9	2.9	2.3	0.6	7.2	5.7	1.5
Agriculture	7.2	4.2	3.0	3.1	2.3	0.8	7.8	5.8	2.0
Other	5.4	3.8	1.6	2.8	2.3	0.6	7.1	5.7	1.4
Utilities	6.9	4.8	2.1	2.9	2.2	0.7	7.3	5.5	1.8
Construction	6.6	4.6	2.0	3.1	2.5	0.6	7.6	6.2	1.5
Manufacturing	7.9	5.6	2.4	3.6	3.0	0.6	9.1	7.5	1.5
Durable	7.8	5.4	2.4	3.4	2.8	0.6	8.6	7.1	1.5
Non-durable	8.1	5.9	2.2	3.9	3.3	0.6	9.8	8.2	1.6
Service-producing	**8.4**	**6.1**	**2.3**	**3.9**	**3.2**	**0.7**	**9.7**	**8.0**	**1.7**
Trade	7.0	5.0	2.0	3.1	2.6	0.6	7.9	6.4	1.4
Wholesale	6.8	4.6	2.1	2.8	2.2	0.6	7.0	5.6	1.4
Retail	7.1	5.2	1.9	3.3	2.7	0.6	8.2	6.8	1.4
Transportation and warehousing	8.4	6.4	2.0	4.9	4.3	0.7	12.3	10.6	1.7
Finance, insurance, real estate and leasing	8.2	5.8	2.3	3.4	2.8	0.6	8.5	6.9	1.6
Finance and insurance	8.4	5.9	2.4	3.5	2.8	0.6	8.7	7.1	1.6
Real estate and leasing	7.4	5.3	2.1	3.2	2.5	0.6	8.0	6.3	1.6
Professional, scientific and technical	7.0	4.4	2.6	2.3	1.7	0.6	5.8	4.3	1.5
Business, building and support services	8.8	6.7	2.0	4.1	3.4	0.6	10.1	8.6	1.6
Educational services	9.1	6.6	2.5	3.8	3.0	0.7	9.4	7.6	1.8
Health care and social assistance	10.3	8.0	2.3	5.6	4.7	0.8	14.0	11.8	2.1
Information, culture and recreation	7.5	5.6	1.9	3.4	2.9	0.6	8.6	7.2	1.4
Accommodation and food services	6.0	4.3	1.7	3.0	2.4	0.6	7.6	6.1	1.5
Other services	6.9	4.4	2.4	2.6	2.0	0.6	6.5	4.9	1.6
Public administration	11.5	8.5	3.0	5.1	4.3	0.9	12.8	10.7	2.1
Federal	14.6	10.5	4.1	6.1	5.0	1.1	15.2	12.5	2.7
Provincial	10.5	8.0	2.4	4.8	4.1	0.7	11.9	10.2	1.8
Local, other	8.5	6.3	2.2	4.2	3.5	0.7	10.5	8.8	1.7

1. Excluding maternity leave. However, men on paid paternity (in Quebec only) or parental leave are included in the calculation until 2006.
2. Absent workers divided by total.
3. Hours absent divided by hours usually worked.
4. Inactivity rate multiplied by working days in year (250).

Source: Statistics Canada, Labour Force Survey.

Table 4 Absence rates for full-time employees by occupation, 2011[1]

	Incidence[2]			Inactivity rate[3]			Days lost per worker in year[4]		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities
	%			%			days		
All occupations	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
Management	6.1	4.2	1.9	2.7	2.2	0.5	6.8	5.5	1.3
Business, finance and administrative	9.5	6.8	2.7	4.1	3.3	0.7	10.1	8.4	1.8
Professional	7.9	5.3	2.6	3.0	2.3	0.7	7.5	5.7	1.8
Financial and administrative	9.0	6.1	2.9	3.8	3.1	0.7	9.5	7.7	1.8
Clerical	10.2	7.6	2.6	4.5	3.8	0.7	11.2	9.4	1.8
Natural and applied sciences	7.0	4.6	2.4	2.3	1.7	0.6	5.8	4.4	1.4
Health	9.9	7.9	2.0	5.6	4.8	0.8	14.1	12.0	2.1
Professional	6.5	3.8	2.7	2.4	1.5	0.9	6.0	3.8	2.1
Nursing	10.6	8.8	1.9	6.3	5.5	0.8	15.8	13.7	2.1
Technical	9.5	7.4	2.2	5.2	4.3	0.9	13.0	10.7	2.2
Support staff	10.8	8.9	1.9	6.6	5.9	0.8	16.6	14.7	1.9
Social and public service	9.0	6.4	2.6	3.5	2.7	0.8	8.8	6.9	2.0
Legal, social and religious	9.6	6.8	2.8	3.9	3.0	0.9	9.7	7.6	2.1
Teachers and professors	8.5	6.0	2.5	3.2	2.5	0.7	8.0	6.2	1.8
High school and elementary	10.3	7.4	2.9	3.9	3.0	0.8	9.7	7.6	2.1
Other	4.4	3.0	1.5	1.8	1.3	0.5	4.6	3.3	1.3
Culture and recreation	7.5	5.3	2.2	2.9	2.4	0.5	7.3	6.0	1.4
Sales and service	7.3	5.5	1.8	3.7	3.1	0.6	9.3	7.8	1.5
Wholesale	5.3	3.5	1.8	2.1	1.6	0.5	5.2	3.9	1.3
Retail	7.0	5.2	1.9	3.5	2.8	0.7	8.6	7.0	1.6
Food and beverage	5.7	4.2	1.5	3.1	2.5	0.5	7.7	6.4	1.3
Protective services	8.2	6.6	1.5	4.8	4.2	0.6	11.9	10.4	1.5
Child care and home support	9.6	6.5	3.1	4.1	3.1	1.0	10.3	7.9	2.5
Travel and accommodation	8.5	6.7	1.9	4.5	3.9	0.6	11.3	9.7	1.6
Trades, transport and equipment operators	7.8	5.7	2.1	4.0	3.3	0.6	9.9	8.3	1.6
Contractors and supervisors	5.3	3.7	1.6	2.5	2.1	0.5	6.4	5.2	1.2
Construction trades	8.1	5.5	2.5	3.7	2.9	0.8	9.2	7.2	2.0
Other trades	8.3	5.9	2.4	4.0	3.4	0.6	10.1	8.5	1.6
Transport equipment operators	7.1	5.5	1.6	4.3	3.8	0.5	10.8	9.4	1.4
Helpers and labourers	8.4	6.3	2.0	4.2	3.5	0.7	10.5	8.8	1.7
Unique to primary industry	6.1	4.2	1.9	3.1	2.5	0.6	7.7	6.1	1.6
Unique to processing, manufacturing and utilities	8.8	6.4	2.4	4.3	3.7	0.7	10.8	9.1	1.7
Machine operators and assemblers	8.4	6.0	2.4	4.0	3.4	0.7	10.1	8.5	1.6
Labourers	10.4	8.0	2.4	5.5	4.8	0.7	13.7	11.9	1.8

1. Excluding maternity leave. However, men on paid paternity (in Quebec only) or parental leave are included in the calculation until 2006.
2. Absent workers divided by total.
3. Hours absent divided by hours usually worked.
4. Inactivity rate multiplied by working days in year (250).

Source: Statistics Canada, Labour Force Survey.

Table 5 Absence rates for full-time employees by workplace size, job tenure, job status and union coverage, 2011[1]

	Incidence[2]			Inactivity rate[3]			Days lost per worker in year[4]		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Own Illness or disability	Personal or family responsibilities
	%			%			days		
Workplace size									
Both sexes	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
Less than 20 employees	6.9	4.6	2.2	3.0	2.4	0.6	7.5	6.0	1.6
20 to 99 employees	8.2	6.0	2.2	3.7	3.1	0.6	9.3	7.7	1.6
100 to 500 employees	8.9	6.7	2.3	4.3	3.6	0.7	10.6	9.0	1.7
More than 500 employees	9.2	6.9	2.3	4.4	3.7	0.7	11.1	9.3	1.8
Job tenure									
Both sexes	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
1 to 12 months	6.5	4.5	2.0	2.5	1.9	0.6	6.2	4.8	1.4
1 to 5 years	7.9	5.7	2.1	3.5	2.8	0.6	8.6	7.1	1.6
5 to 9 years	8.6	6.1	2.4	3.9	3.1	0.7	9.7	7.9	1.8
9 to 14 years	9.3	6.5	2.7	4.3	3.5	0.8	10.8	8.8	2.0
Over 14 years	8.8	6.7	2.2	4.7	4.0	0.6	11.7	10.1	1.6
Job status									
Both sexes	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
Permanent	8.3	6.0	2.3	3.8	3.2	0.7	9.6	7.9	1.7
Non-permanent	6.7	4.7	1.9	2.8	2.2	0.6	7.0	5.6	1.5
Union coverage									
Both sexes	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
Union member or covered by collective agreement	10.4	8.0	2.4	5.3	4.5	0.8	13.2	11.3	1.9
Non-unionized	7.0	4.8	2.2	3.0	2.4	0.6	7.5	5.9	1.5

1. Excluding maternity leave. However, men on paid paternity (in Quebec only) or parental leave are included in the calculation until 2006.
2. Absent workers divided by total.
3. Hours absent divided by hours usually worked.
4. Inactivity rate multiplied by working days in year (250).

Source: Statistics Canada, Labour Force Survey.

Table 6 Absence rates for full-time employees by province, region and census metropolitan area (CMA), 2011[1]

	Incidence[2]			Inactivity rate[3]			Days lost per worker in year[4]		
	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities	Total	Illness or disability	Personal or family responsibilities
Province and region		%			%			days	
Both sexes	**8.1**	**5.9**	**2.2**	**3.7**	**3.1**	**0.7**	**9.3**	**7.7**	**1.6**
Atlantic	8.7	6.3	2.4	4.2	3.6	0.7	10.6	8.9	1.7
Newfoundland and Labrador	7.6	5.4	2.2	4.1	3.4	0.7	10.2	8.5	1.8
Prince Edward Island	8.4	6.1	2.3	3.9	3.3	0.6	9.9	8.3	1.5
Nova Scotia	9.1	6.6	2.5	4.3	3.6	0.7	10.8	9.0	1.8
New Brunswick	8.9	6.7	2.3	4.3	3.7	0.7	10.8	9.2	1.7
Quebec	8.8	6.5	2.3	4.3	3.7	0.6	10.8	9.3	1.5
Ontario	7.7	5.5	2.3	3.3	2.6	0.7	8.3	6.6	1.7
Prairies	8.0	5.8	2.3	3.5	2.8	0.7	8.8	7.0	1.8
Manitoba	9.1	6.5	2.7	4.1	3.3	0.8	10.2	8.2	1.9
Saskatchewan	9.5	6.6	2.8	4.4	3.5	0.9	11.0	8.8	2.2
Alberta	7.3	5.3	2.0	3.2	2.5	0.7	7.9	6.3	1.6
British Columbia	7.7	5.9	1.9	3.9	3.3	0.6	9.9	8.3	1.6
All CMAs	**8.0**	**5.8**	**2.2**	**3.5**	**2.9**	**0.6**	**8.8**	**7.3**	**1.6**
St. John's	8.6	5.8	2.8	4.2	3.4	0.8	10.4	8.4	2.0
Halifax	9.2	6.6	2.6	4.1	3.3	0.8	10.2	8.3	1.9
Saint John	8.0	5.8	2.2	3.9	3.1	0.8	9.9	7.9	2.0
Moncton	9.0	6.8	2.2	4.0	3.6	0.4	10.1	9.0	1.1
Saguenay	7.4	5.2	F	3.5	3.0	F	8.7	7.5	F
Québec	8.4	5.9	2.5	3.8	3.3	0.6	9.6	8.1	1.4
Montréal	9.1	6.7	2.4	4.3	3.7	0.6	10.8	9.3	1.5
Trois-Rivières	7.7	5.7	F	3.7	3.3	F	9.4	8.2	F
Sherbrooke	8.2	6.3	F	3.9	3.5	F	9.9	8.8	F
Gatineau	11.2	8.2	3.1	4.7	3.8	0.8	11.7	9.6	2.1
Ottawa	10.0	6.8	3.3	3.7	2.9	0.8	9.3	7.2	2.1
Kingston	8.5	6.3	F	3.8	3.1	F	9.6	7.8	F
Barrie	8.7	6.4	2.4	3.4	2.9	0.6	8.6	7.2	1.4
Brantford	8.2	6.0	F	4.0	3.4	F	10.1	8.5	F
Greater Sudbury/ Grand Sudbury	8.6	6.1	F	4.1	3.4	F	10.3	8.5	F
Peterborough	7.8	5.9	F	3.4	2.9	F	8.4	7.3	F
Guelph	7.1	4.7	F	2.7	2.0	F	6.8	4.9	F
Toronto	6.9	4.9	2.0	2.9	2.3	0.6	7.1	5.7	1.5
Hamilton	7.6	5.1	2.4	3.6	2.8	0.7	8.9	7.1	1.8
St. Catharines–Niagara	8.0	5.7	2.3	3.6	2.9	0.7	9.0	7.3	1.7
London	7.7	5.3	2.4	3.3	2.6	0.7	8.2	6.5	1.7
Windsor	8.2	6.0	2.3	3.6	3.0	0.6	9.1	7.5	1.6
Kitchener–Waterloo	7.9	5.3	2.6	3.3	2.6	0.7	8.2	6.4	1.8
Oshawa	7.8	5.7	2.1	3.3	2.6	0.6	8.2	6.6	1.6
Thunder Bay	9.0	6.6	F	4.2	3.4	F	10.5	8.5	F
Winnipeg	9.2	6.7	2.5	4.0	3.3	0.7	10.0	8.3	1.7
Regina	9.7	6.6	3.0	4.0	3.2	0.8	10.0	8.0	2.0
Saskatoon	8.9	6.7	2.2	3.9	3.3	0.6	9.7	8.2	1.4
Calgary	7.0	5.2	1.8	2.9	2.3	0.6	7.1	5.8	1.4
Edmonton	7.7	5.7	2.0	3.3	2.6	0.6	8.1	6.6	1.5
Abbotsford	8.0	6.5	F	4.0	3.5	F	10.1	8.8	F
Vancouver	7.3	5.5	1.7	3.6	3.0	0.6	9.1	7.5	1.5
Victoria	9.1	6.8	2.4	4.4	3.7	0.7	11.1	9.2	1.8
Non-CMAs	8.4	6.0	2.4	4.3	3.5	0.8	10.7	8.9	1.9
Population centres	8.2	6.0	2.2	4.0	3.3	0.7	10.0	8.3	1.7

1. Excluding maternity leave. However, men on paid paternity (in Quebec only) or parental leave are included in the calculation until 2006.
2. Absent workers divided by total.
3. Hours absent divided by hours usually worked.
4. Inactivity rate multiplied by working days in year (250).
Source: Statistics Canada, Labour Force Survey.

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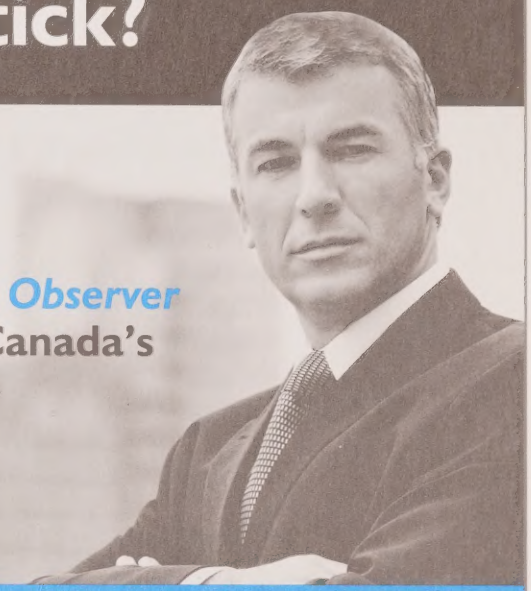

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